

[illegible]

[illegible]

THE
PURCHASERS
PATTERN.

In two Parts, Containing.

- I. The true value of any purchase of Land or houses by Lease or otherwise: Also, a moderate Discourse of Usury. With many observations, and Tables of Interest and Rebatement.
- II. The true measuring of Land, Board, Timber, and Gauging of Cask: And discovering the false Rules and Deceits which are used by many therein.

With many other Rules and
Tables of daily use for
most men.

*The Second Edition corrected and
enlarged.*

By HEN. PHILIPPES.

LONDON,
Printed by R. & W. Leybourn, for
T. Pierrepont, at the Sun in Pauls
Church-yard, 1654.



ca
en
on
L
en
in
on
of
lik



To the Reader.

IT is a maxime both in Divinitie and Philosophie, that all vertues are cōcatenated, and have an influence and dependance one upon the other; but these two, *Love* and *Equitie*, are more eminent and excellent herein: So that, as it is said of the one, that *Love is the fulfilling of the whole Law*: So it may likewise be said of the other,

To the Reader.

that *Justice* is the fulfilling of the whole *Law*. For Justice is a giving to every one his due: and he that gives God his due, and his neighbour his due, doth all things which both the *Law* and *Gospel* requireth.

But this is one thing makes this world so bad, that as our *love* is cold, so our *Justice* is blinde. I confesse *Justice* by the Ancient *Painters* is well represented with a *Sword* in the one hand, signifying the punishment of *Vice*; and with a pair of *Balances* in the other, shewing the *Equity* which ought to be in all our dealings one towards another; but

like

To the Reader.

like not the *Veile* wherewith they hide her eyes, since she ought rather to be Eagle-sighted. I know they would intimate hereby the impartiall eye of *Justice*, that it should be no respecter of persons: but I fear it may more fitly expresse, that our *Justice* is often blinded with the *Veil* of *Ignorance*, and more often with the mantle of *selfe-love*. Both these *Veils* I am sure must be taken away, or else *Justice* cannot do its Office.

As for that of *selfe-love*, it is not my taske to meddle with it; only I desire all men to follow that Rule of our Lord and Saviour, *to do to o-*

A 4. *thers*

To the Reader.

thers as they would be dealt withall, and not those worldly maximes, to make the best of their own; and let the buyer look to himself, as well as he can.

As for the veil of *Ignorance*, I have endeavoured what I can to take it away by this *Discourse*; for considering the many ways whereby most men are apt to deceive both themselves and others in the way of purchasing *Land* or *Leases*, and the few instructions which are extant to direct them, together with their obscurity; I have as plainly and briefly as I could, by these following *Rules* and *Tables*, set before you the true value of
any

To the Reader.

any kinde of Purchase; so that, if men will not be wilfully ignorant, they may easily walk in the paths of *Justice*, without any wandering therefrom.

And to make you more heedful hereof, you shal finde, that if you will depart from those Rules, grounded upon Art and Reason, you may as well deceive your self as another by your own ignorance, thinking that you buy a good *bargain*, or sell at a good *rate*, when you do the contrary.

It were to be wished if some such *Rules* as these were at least countenanced and approved of, (if not established and confirmed) by publique *Au-*

A 5 *thority.*

To the Reader,

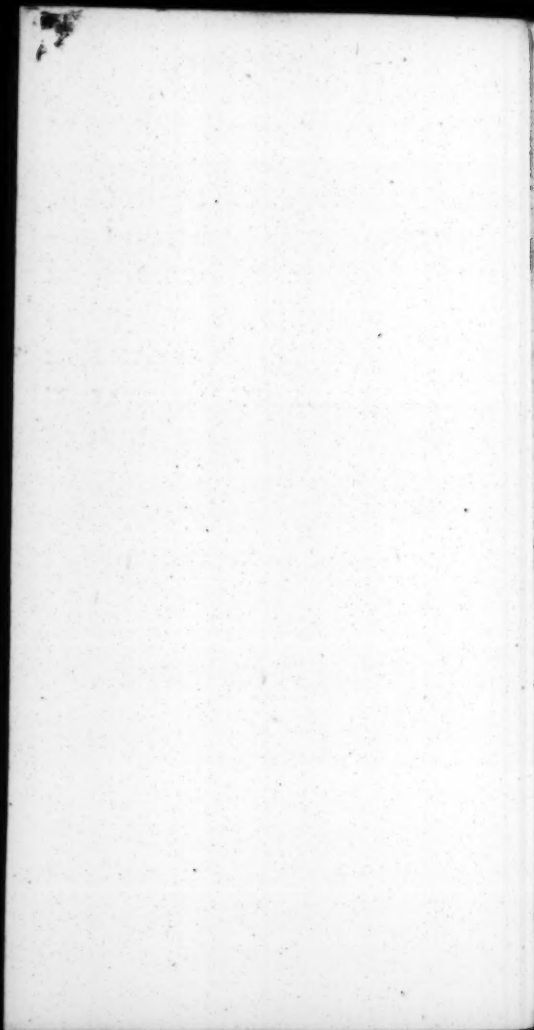
thority. But I hope the *Truth* is so plain and strong of it self, that it needs it not; neither shal I aspire after any such publike honour. It's enough for me that I have had your private acceptance of my former labours, & therefore I thought my self engaged to this second Edition; which I hope I have made more plain and useful, by adding and enlarging many particulars, which then I wanted time to do. So that now it will be of more general use to all sorts of men, Landlords, and Tenants, Merchants and Artificers. And though it may be hard to please all, yet I hope none will be justly displeased.

To the Reader.

pleased herewith ; my chief purpose herein , being to instruct those who are ignorant, to beware of the craft and covetousness of others ; and of the false rules they reckon by, that so all men may have a true and equal profit (as neer as might be) in all these kinde of Bargains.

And so once again , desiring your favourable acceptance, I rest,

Yours *H. P.*





A Table of the Contents of this Book.

| | |
|---|-----------------------|
| T He general purpose, | Pag. 1 |
| Rules of Law to be observed in all purchases, | 2, 3 |
| Interest the rule to estimate the price of any purchase, | 4 |
| Land worth 20 years purchase, | 5 |
| Why Land is worth so much, | 6, 9 |
| Value of Leases of Land, | 8, 7 |
| Value of Houses discussed, | 10, 11, 12, 13, 14 |
| Whether a long lease or a short lease is best, | 16, to 24 |
| Value of the purchase of houses out- right, | 24, 25 |
| How to reckon for taxes, | 25, 26 |
| Buy- | |

The Contents.

| | |
|--|-----------------|
| <i>Buying of lives,</i> | 26, 27 |
| <i>Rules to calculate the following tables</i> | 29, 38 |
| <i>A table of Decimal fractions, to reduce li. sh. d q.</i> | 33 |
| <i>Tables of purchase at the rates of 5, 6, 7, 8, 9, 10, 11, 12, per Cent. p. 40</i> | 41, 42, 43, &c. |
| <i>The use of these tables explained by several questions and examples;</i> | 47 to 59 |
| <i>Rules in buying Reversions</i> | 60 |
| <i>A table of Reversions,</i> | 63 |
| <i>The value of Reversions of lands,</i> | 66 |
| <i>Value of Reversion of houses,</i> | 67 |
| <i>Other questions of Reversions,</i> | 68 to 73 |
| <i>A brief discourse of Usury, shewing there neither is or ever was any other way used in the valuation of purchases, then what proceeds from Interest or Usury,</i> | 73, 74, 75 |
| | 76 The |

The Contents.

| | |
|--|----------------|
| The point of hazzard in contracts disinssed, | 77, 78, 79, 80 |
| Usury (strictly taken) not absolute- ly unlawful, | 81, 82, 83 |
| Cautions to be observed herein, | 86, 87 |
| The abuse of Usury discovered, | 88, 89 |
| A remedy prescribed, | 90 |
| Plain tables of Interest at 6 per Centum, for dayes, and mooneths, | 95, &c. |
| Use of these tables, | 105, 106 |
| Some more curious observations in casting up Interest-money, | 106, 107 |
| Another table of Interest at 6 per Centum, for every day in the year, | 110, &c. |
| The use of these tables, | 114, &c. |
| Whether the full half of the whole years Interest, may be taken at the half years end? | 123, 124 |
| | The |

The Contents.

| | |
|--|----------|
| <i>The nature of Rebatement among Merchants,</i> | 126 |
| <i>Rules of Arithmetick to cast it up by,</i> | 128, 129 |
| <i>Tables of Rebatement to 24 moneths,</i> | 130, &c |
| <i>The use of the said tables,</i> | 141, &c. |
| <i>How to reduce several times of payments to one,</i> | 143 |



The Contents of the second
part of the *Purchasers*
Patern.

| | |
|--|-----|
| H ow to measure lengths, | 151 |
| How to measure boards, | 152 |
| A table of Board-measure, | 156 |
| Rules to make and use the said table, | 157 |
| To measure land, | 159 |
| To measure a square piece of land, | 160 |
| To measure a three-sided, or triangular piece of land, | 162 |
| To measure a round piece of land, | 164 |
| To measure any small section of a great Circle. | 166 |
| To measure any plot of Land, in wh. | |

The Contents.

| | |
|---|----------|
| <i>What form soever, and to make a plot of any field,</i> | 171, &c. |
| <i>How solid bodies are measured,</i> | 182 |
| <i>To measure a true squared piece of timber,</i> | 183 |
| <i>A new table of timber-measure, for squared timber,</i> | 185 |
| <i>The demonstration of the said table,</i> | 186 |
| <i>The use of the said table,</i> | 188 |
| <i>How to project the said table into a line, upon a Ruler, for the more ready and exact use thereof,</i> | 189 |
| <i>A table to draw the line by,</i> | 193 |
| <i>To measure timber which is not per- fectly square,</i> | 195, &c. |
| <i>A table for that purpose,</i> | 198 |
| <i>To measure round timber, and a dis- covery of the falshood used herein,</i> | 199, &c. |
| <i>A table for the true and ready mea- suring of round timber,</i> | 207 |
| <i>How</i> | |

The Contents.

How to measure tapering timber,
with the error usually committed
herein, and how to avoid it, 210;
 &c.

A general note for the help of all these
tables, 216

Observations in gauging, 217

A table for the gauging of Wine ves-
sels, 220

A gauging line, 221

The demonstration and use of the
gauging table and line, 222, &c.

How to draw the like line, and a ta-
ble for that purpose, 228, &c.

How to make the like line, and
table for Ale-measure, 232

General observations of Measures,
236

Observations of Weights, 238

The worth of Gold and Silver, 239

To try the truth of Gold, 240

The Assize of Bread, 244

A

The Contents.

| | |
|---|-----|
| <i>A table for buying and selling by the pound or hundred,</i> | 248 |
| <i>A table of Accounts, for the ready casting up the true value of any great number of commodities,</i> | 250 |
| <i>A table of expences,</i> | 261 |
| <i>A table of all the Shires, Hundreds, Cities, &c.</i> | 264 |
| <i>A table of the Kings of England,</i> | 266 |
| <i>A brief Chronologic from the time of Queen Elizabeth, to the year, 1654,</i> | 268 |





These Books following are
sold by *Thomas Pierrepont*, at the
Sun in *Pauls Churchyard*.

Dr. *Twisse* learned Treatise in
defence of the Sabbath-day.

Dr. *Stoughton* 17 choice Ser-
mons.

Mr. *Fenners* Works in five
Treatises.

Puerilis Confabulat. in English.

The whole Treatise of the ca-
ses of conscience, by Mr. *W. Perkins*
Miscellanea Philo-Theologica, or
God and Man, wherein many Se-
crets of Scripture and Nature are
un-bowelled, by *Henry Church*.

Dr. *Ames* Exposition of both
the Epistles of *Peter*.

The

The Works of Mr. *Nicholas Lokyer* in three Treatises.

The spirituall mans Directory, by Mr. *Fenner*.

Usefull instructions for evill times, by Mr. *Nicholas Lokyer*.

Natural Philosophie reformed, dy *J. A. Comenius*.

Artificers plain Scale by Mr. *Thomas Stirrup*,

Dr. Sibbs Christian Charter.

Certain select cases resolv'd, by Mr. *Henry Shepherd*.

Horometria, or the compleat Diallist, by Mr. *Thomas Stirrup*.

The description and use of an *Universall Quadrat*, by which any Triangle either Plain or Spherical may be speedily and exactly resolved: also divers questions in *Arithmetick*, *Geometry*, *Astronomie*, *Navigation*, *Surveying*, and *Diallings*, by Mr. *Thomas Stirrup*.

The Compleat Body of the Art Military, by Major *Richard Elton*.



In the printing hereof, there have some small faults escaped, the chief whereof are thus to be corrected.

Page 28.1.3. blot out, thereof.

Page 58.1.19. read, Thus an 100.

In the decimal tables of Interest, page 110, &c. A cypher should have been set before each number, as you may perceive in the use thereof, but this small volume would not allow thereof, without leaving out one of the last figures, which may be of more use.

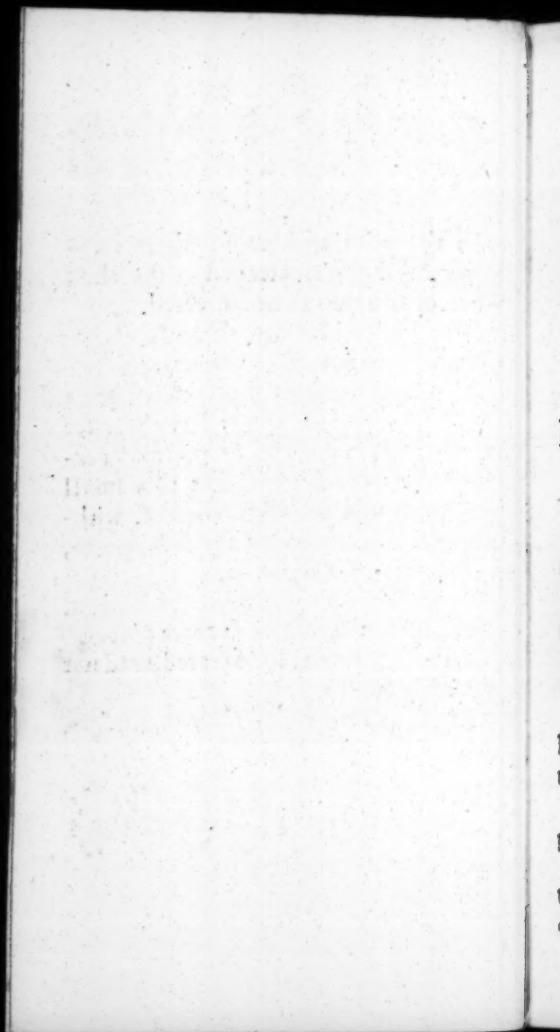
In the measuring of Land for Rod, 1. Rood of Land, in two or three places.

Page 195, line 2. for squared, read not perfectly square.

Page 204, line 5, read above 10 inches.



* Cyphers in this situation are
now exploded & of no use the
point is sufficient. Bv—
100 July 1809





THE PURCHASERS PATTERN.

IN the buying and selling of Land, and in the letting and taking of Leases, either of Land or Houses, there are many things very considerable ; which may all be reduced to these three generall heads.

First, to the Law, to make the Bargain sure.

Secondly, to Reason and Iudgement, to know the nature of that you purchase.

B

Third-

Thirdly, to Arithmetick, to finde out the true value.

My chief purpose herein is to speak of this last, referring you in the other two, to your own judgement, and the counsell of others: yet because I am loath to let those who need some instructions herein, and will be willing to learn, go altogether without, I shall briefly speak somewhat to each of these.

And in the first place, as to matter of Law, take it as I finde it summed up in these Verses.

*First, see the Land which thou intend'st
to buy,
within the Sellers Title clear doth lie;
And that no woman to it doth lay claim,
By Dowry, Joynture, or some other name
That may it cumber. Know if bond or free
The Tenure stand, and that from each
Feoffee
It be released. That th' Seller be so old,
That he may lawfull sell, thou lawfull
hold.
Have special care that it not Morgag'd lie,
Nor be intailed on Posterity.*

Then

Then if it stand in Statute, bound or no,
Be well advis'd what Quit-rent out must
go, (old

what Custome-service hath been done of
By those who formerly the same did hold.

And if a wedded woman put to sale,
Deal not with her unlesse she bring her
Male;

For she doth under Covert-barren go,
Although sometimes some traffique so
(we know.)

Thy bargain being made, and all this done,
Have speciall care to make thy Charter
run,

To thee, thine Heirs, Executors, Assigns,
For that, beyond thy life, securely bindes.

These things fore-knownn, and done, you
may prevent

Those things rash buyers many times repēt.
And yet when as you have done all you
can,

If you'l be sure, deal with an honest man.

Much might be said to this in point of
law; but neither my skill nor time will
afford it. It is the best way for every
one, not to trust too much to his own

skill, but to use the help of some skilfull Lawyer, and knowing Scrivener. And I shall onely adde this, that though the man you deal withall, have the repute of an honest man: yet trust nor too much upon that; but be carefull to have all the assurance made unto you, as if he were your utter enemy, or a very K.

IN the second place, before you can know the true value of the thing to be purchased, you must well consider the nature of the thing, and the casualties that it may be subiect to, and so according to the goodnesse and certainty thereof, you must cast up the price at a greater or lesser rate of profit.

And to this purpose in the first place, take notice that the Rate allowed for Interest money, is the generall ground and rule to estimate the value of any purchase by.

This was formerly in *Queen Elizabeths* dayes allowed to be 10 pound for 100. But in King *James's* time, it was, upon very good grounds brought down

to 8 pound for an 100. And now of late, by our present State, it is allowed but to take 6 pound Interest for an 100. Now as the Interest of money falleth, so the price of all kinde of Purchases riseth. This you may see in the following Tables. And it must needs be so, because the lesse profit is allowed, the greater principall must be expended to bring in the same profit. Thus when money was at 8 in the 100, then 75 pounds would bring in 6 pounds a year, whereas money being but at 6 in the 100, an 100 pounds will bring in but the said 6 pounds a year.

But yet you must not think that this Rate allowed for Interest money, is the absolute rule of all Purchases; but as formerly, when money went at 8 for an hundred, yet Land was worth 18 years purchase: so now money is at 6 for the hundred, Land is well worth 20 years purchase. And though men who thus lay out their money upon Land, have but five in the hundred profit for their money; yet there may

be good reasons given why men should be willing so to do. As,

First, Because though every thing be subject to casualty in this uncertain World; yet an estate in Land is lesse subject to danger, and of more sure continuance, both for a mans own life, and his posterity after him.

Secondly, It hath been hitherto, and it is like to be so still, that the price of money falls cheaper, and the price of Land riseth dearer: and that not only (as I said before) in proportion to the rate of Interest, but in respect of the value of the things themselves; in such wise, that a Farme that formerly was worth but 30 pounds a year, is now worth 50 pounds, or more. So that the old Rent of Land, may in a short time be much improved, whereby the Land-Lord may in a short time mend his bargain, if it be any good peny-worth when he bought it.

Thirdly, In point of Piety, many
men

men had rather lay out their money in Land, though with lesser profit; then let it out to Interest: Because Usury, through the ill practises of many, hath gotten such an odious name, and been so generally condemned by many godly men.

Fourthly, There is much equity herein. For as men who have greater Stocks, and Trade by Whol-sale; may live upon a lesser rate of profit than those who have but small Stocks, and Trade by Retail. So men who have great Estates, to buy land therewith; may very well lay out their money at lesser profit than other men, and yet live better thereof. Thus a man that hath 4000 pounds, may purchase therewith 200 pounds a yeare, and may live better thereupon, though he have but five pounds in the 100 profit for his money; then he that hath an estate of 1000 pounds in money, and puts it out to Interest at six pounds for an hundred, can live of 60 pounds the yearly Interest thereof. And hereupon the Empe-

our *Justinian* made a Law that Noble men and Earls should take but 4 pounds Interest for 100. Artificers might take 8 pounds. Merchant Adventurers 12 pounds, and other men 6 pounds in an hundred.

And thus much for the price of Land in generall, here in *England* it is worth 20 years purchase. In other Countreys, where money is plenty, and land scarce, it may be worth more; as in *Holland* land is worth 30 years purchase, and money not worth 3 or 4 *per Cent.* But in many other places it is worth lesse. Yea, as I am informed in *Lincoln-shire* very good land is sold for 15 or 16 years purchase: these things the buyer and seller must consider of, and do therein, as their own judgement, and their occasions, and opportunities offered, will allow them the best bargain.

IN the next place it may be considered, after what Rate Leases of Land are fittest to be let. And that is according to the present Rate of Interest money, what ever it be; whether 5, 6, 7, or 8 in the hundred. For

¶ For first, It is not fit that they should pay more then their money will yield them; because they are men of smaller estates, and such as, for the most part, do with much care, cost and pains, get their Rent for their Land-Lords, who live many times at ease. And if their Land-Lord think they have too good a penny-worth, he wants not power and will to make him pay more for his next Bargain.

On the other side, it is not fit that these Leases should be let at any under Rate, both because they are certain, and lesse hazard therein; then in laying out their money any other way: and also, because the Land-Lord himselfe gives a dearer Rate, and so would hereby be too much damnified. And after this Rate you must value all other Annuities which are certain, and assured by Lands.

THE next thing I shall propose to your consideration, is the Rate which is to be observed in letting and selling of Houses. And herein it will be very

B 5

requi-

requisite to consider of the many Casualties which Houses are subject to.

As first from the Air, they are continually weather-beaten; and sometimes, by extraordinary windes and tempests, much rent and torne; so that in a short time they run to decay, if they be not continually kept in good repair.

Secondly; from the water likewise they receive continuall damage, even by the ordinary showers of rain, which are subject to soke in and rot, and spoil them, if not carefully prevented: and many times also extraordinary floods and inundations destroyes them in a moment.

Thirdly, though this destruction by water need not much be feared in many places; yet fire may be justly feared in all: which, if it once get the mastery, is a mercilesse enemy; and this it doth too-too often, and is not to be prevented by all our own care and watchfulness, proceeding many times from the carelesnesse of a neighbour, or an idle servant.

Fourthly,

Fourthly, the Earth it selfe, though it be their best friend, and for the most part upholds them; yet many times for the sins of the inhabitants, it trembles under them, throwes them down, or swallowes them up. By this meanes, whole Cities are sometimes destroyed in an instant: and though this seldome happens in our Island, yet in *Queen Elizabeths* dayes there were three of these Earthquakes; and though, blessed be God, they did no great hurt; yet some they did in this particular.

But passing by all these petty and extraordinary casualties, there is one more which, in my minde, is more to be considered then all the rest; and that especially, if a man buy an house not for his own use and habitation, but to let it out to others. And that is, that many times a man shall meet with an ill Tenant, that will scarce pay his Rent; and sometimes it may stand empty without a Tenant, and so bring in no profit at all; and also hereby it runs more speedily to ruine. And this case is so much the more considerable, because it is so ordinary.

nary; and for this very reason, an house that stands void, is not worth so much by at least a years purchase, as another house that hath a good Tenant in it; and it is so much the worse if the house stands not in a good place, where it is like to be long without a Tenant: howsoever a year is quickly gone, and a year lost at the beginning, is worth as much as two afterward.

All these things, though men do what they can to prevent them, and shift them off from themselves by Fines and Leases; yet they must needs fall either upon the Landlord or the Tenant, and many times fall heavy enough upon both.

For these and such like reasons, it was the usuall custome, when money was at eight in the hundred, to let Leases of Houses of 21 years, for 7 years purchase. By which reckoning (as you may see by the Tables following) they allowed about 13 in the hundred for the profit of their money to the buyers. For after 12 in the hundred one pound yearly rent for 21 years, is worth

worth 7 pounds, 11 shillings 2 pence, which is above 7 years and an halfe purchase, therefore bare 7 years purchase yields more profit, and is much about 13 in the hundred.

Now if this rate were thought fit when money was at eight in the hundred, then, now money is at six, such Leases may very well be let after the rate of ten in the hundred. And so one pound yearly Rent to continue 21 years is worth 8 pounds, 12 shillings and 11 pence, that is, 8 years, an halfe, and halfe a quarters purchase. And this I suppose to be the fittest rate for most ordinary houses.

But yet since some Houses being new and strongly built, need little or no reparations, and others, being old and decayed, need great and costly reparations, and many times must be partly built, since these things lie commonly upon the Tenant, the better sort of Houses will be worth more, and the other lesse. So that the prizes of all these leases of Houses, may be reckoned after the rates of 8, 9, 10, or 12, *per Centum*.
And

And to conceal nothing from you in this point ; the chief thing to be looked upon in this particular, is whether the yearly rent of the house be rated at such an easie rate, that the house is very well worth it , and will yield rather more then lesse. In this case, the house may be worth a years or two years purchase more then otherwise. But if the house be but rated according to its outmost value, it will be a dear peny-worth to give above the rate of 10 *per Centum* for it.

It may perhaps be objected against this, the great cost which men are at in building of Houses , so that if Leases of them yield no better rate, those who are at the cost to build them, will scarce have five or six in the hundred for their money laid out upon them.

To this it may be replied, that Houses are things from whence the Tenant, for the most part, receiveth little or no profit, being chiefly sleeping holes to defend them from the injury of the weather; for which purpose many times lesse costly houses would serve the turn.

And

And therefore what ever men may lay out upon the building and beautifying of them, for their own pleasure and accommodation, yet it will be the part of every wise builder, to lay out no more thereon, then is fitting and necessary, according to the place it stands in; that so the yearly rent may bring in some considerable profit, at least to the rate of eight in the hundred.

As for publique Buildings, either for strength or ornament, they are not to be measured by so private a Standard.

If any well affected persons, or Corporations, having stocks of money lying by them, shall build in convenient places, or Towns wasted by fire, houses somewhat above the degree aforesaid; such men, though they receive lesse profit, yet they deserve more praise.

But as for those that lay out so much upon their private houses, that many times they would be glad to sell them again for half their cost; they may thank themselves for their losse; and may well be accounted foolish Builders, that

that did not consider before hand, what it would cost them.

By what hath been said, you may perceive that Leases either of Land or Houses, are the most profitable Tenures for the ordinary sort of men. But yet you may desire to know whether an ordinary Lease of 21 years; or a longer Lease of 40, 50, or 60 years be best.

I start this question, to lay open the error of many men, who proceed in these Bargains without sufficient knowledge in point of Art. And from hence it is that one concludes that a short Lease is most profitable, which he thinks thus sufficiently proved.

Saith he, Suppose a man hath 1000 pounds to bestow upon a Lease, if he will purchase a Lease of 100 years, it will cost 13 years purchase at the least, so your 1000 pounds will buy but 77 pounds a year, which doth not amount to the use of your money after the rate of eight in the hundred: Whereas, if you will buy a Lease of 21 years, you may have it for seven years purchase,
(money

(money being at the foresaid rate,) so your 1000 pounds will purchase you a Lease of 140 pounds a year, which is 60 pounds a year more then the Use of your money will come unto. So that in the longer Lease you will lose three pounds a year, and by the shorter Lease you will gain three score pounds a year more then your money will yield at Interest.

This reckoning I confesse is true according to these erronious rules, by which most men make their bargains: and so for want of better knowledge, often times run themselves into very great dammages. The chiefe cause whereof proceeds from mens setting too low a price & value upon a short Lease, and too high a price and esteem upon a long Lease, which is only for lack of Art. And perhaps men may be deceived herein, reasoning thus with themselves, If a man gives 7 years purchase for a Lease of 21 years, it is 7 years before he receives his principall money again, and then he hath but 14 years more for the increase thereof, and in all the 21 years

years he receives his money laid out but three times over : Whereas , a man giving 13 years purchase for a Lease of 100 years; though it be 13 years before he receive his principall in again, yet then he hath 87 years of clear profit, and in the whole 100 years , receives his money laid out almost eight times over.

But this reason deceives men in considering too much of the often return of the money, and too little of the length of the time. For he that hath a Lease of 21 years, for seven years purchase; it is true, he can in that 21 years make but a threefold return of his money : but then after those 21 years, he may make such another bargain for 21 years more, and so return his money three times more. And so continuing to do, in 105 years he may return his principall laid out 15 times over , ten times whereof will be clear gains ; whereas the other shall gain little more then halfe so much.

Thus you see, count which way you will , it is manifest there is a very great dif-

dis-proportion between the price of the long Lease, and the price of the short Lease; which ought not to be so. For what reason is there but that a man should have as good a peny-worth in a long Lease, as in a short one: And I suppose the intent both of buyer and seller is that it should be so: but all the fault lies in those false Rules and customs; and may all with much right and reason be amended by Art.

The truth therefore is, the short Lease is much undervalued; and the long Lease is much over-valued. For in the short Lease, the buyer hath after 13 in the hundred allowed him for the profit of his money; whereas in the long Lease he hath not after 8. And the reason of this over-valuing the long Lease, is either for want of skill, or consideration what the money in that time, at Interest upon Interest will come to. Indeed all men have not time or skill to cast it up, and there is much want of Tables of sufficient length for this purpose, most Tables not exceeding 31 years. And this was the chief reason

son of my writing, and therefore I have enlarged my Tables to 100 years apiece: yet not all in single years, because the difference would be but small, in many of the years, and may be supplied well enough by estimation and proportion.

Now by these Tables you may plainly see, that however men may esteem of a long Lease, yet in most of these things a Lease of 100 years is worth very little more then a Lease of 60 years; and a Lease of 60 years is not worth much more then a Lease of 31 years.

As for example, in the Table of ten in the hundred, the price of one pound to continue one and twenty yeares, is worth 8 pounds, 12 shillings, 11 pence, and the like for 31 years, is worth 9 pounds, 9 shillings, 7 pence; yet the like to continue 60 years, is worth but 9 pounds, 19 shillings, 4 pence; and for 100 years, is not full 10 pounds.

But you will say, this is very strange, and few men think so.

I grant it, but the reason hereof is, because

because men do not consider the profit which their money may yield them in so many years. For though it be not allowed to take ten in the hundred yearly for money; yet those who have any employment for their money other-ways, may very well make at least ten in the hundred of it; and after this reckoning, one pound in 60 years will come to 300 pounds, and in 100 years to 13781 pounds; and on the other side, the Reversion of one pound 60 years hence, at this rate, is not worth a penny, and 100 years hence it is not worth the fourteenth part of a farthing.

By this you may see there is great need of Art which like an equall Umpire, between man and man, may declare the true value of any Lease for any time, so that one bargain shall not be too deare, and another too cheap, but each have a due proportion to the time of years; and so in this respect, there is no more advantage or profit in one kinde of Lease more then in another. But he that will not be ruled by Art, but will follow these, or such like, false Rules, must

must (you see of necessity) either wrong himselfe or others, yea, and before he is aware, may wrong himselfe as soon as another, either in buying or selling such bargains.

In answer therefore to this question: this false conclusion and unjust practise being taken away, so that a man may have as good a penny-worth in a long Lease as in a short Lease; it will plainly appear, that a long Lease for the most part is the best (at least) for the Tenant. For suppose it be a Lease of Land, the Tenant having a long Lease, may and will strive to improve it what he can, because he is in hopes long to enjoy it, and receive the benefit thereof. And all this will be no great hurt to the Landlord, unless he be too greedy after great Fines, or loves alwayes to be raising his Tenants rents, and so many times as they impoverish their Tenants, their Tenants impair their Land.

Indeed for Leases of houses the case is more difficult, for they many times cannot well stand out a long Lease; but yet if a man must take such an house
that

that will require new building either in whole or in part, he had better then have a long Lease thereof, that so he may the longer and more certainly enjoy it after his cost and pains bestowed upon it.

On the other side, when a man hath a short Lease either of land or an house, he dares not do what he would to improve it, lest his Rent should be raised, or he turned out by the greedy covetousness of his Landlord, or the envious greediness of some evill neighbour.

If any one hath an ill bargain of these long Leases, it is the Landlord, and that is not so much because he shall receive so few Fines, but rather by his taking too great Fines of his Tenants, and so by the Fine to cut off so much the more of his yearly Revenue.

For you see that for all the money the Landlord receives for the Fines of those Leases, he rebates his Tenant for it, not onely after the rate of simple Interest, but at Interest upon Interest, at six, eight or ten in the hundred, which you see increaseth so fast in 50 or 60 years, that

that it eats out almost all the principall Rent, and makes the later half of the years to increase so little in value.

It is the best way therefore for Landlords, in these Leases, not to take over great Fines, but such as may be onely sufficient to binde their Tenants to keep to their bargains, and make them carefull to perform their covenants, lest they forfeit their Leases, and lose their Fines. And this is the best and most politick end of these manner of Fines. And this will be best for the Tenant, and no hurt to the Landlord.

THere is one question more about the buying of houses, and that is, that if such long Leases of them do yield no more, what may be the value of them to buy them out right?

To judge the better of this, you must consider the strength and goodnesse of the house, and the Materials of which it is built; whether Timber, Brick, or Stone; In which respects some houses are able to stand many scores (if not some hundreds) of years more then others,

others, and when it comes to be pull'd down, these materialls may be worth somewhat, or serve to the new building thereof again. Now he that hath onely a Lease (though it be a long Lease) yet he hath none of this profit, but is bound to be at charge to uphold and maintain it in as good order as it was delivered to him.

Again, suppose these things are little worth, yet the very space and quantity of ground whereon the house stands, may in many places be very considerable, insomuch that it is ordinary for men to build upon a Lease of 31 years, and yet pay a good reasonable Rent to their Landlord besides. Upon these accounts, the purchase of an house out-right, may well be worth two or three years purchase, more then a Lease of an hundred years. So that though the Leases be not worth above 10 years purchase: yet the Fee-simple of an house may be worth 12 or 13 years purchase.

THere is another thing somewhat considerable in the buying of Land and
C
houses

houses, and that is the Taxes which for the present lie heavy upon them. But this I hope by Gods blessing in a short time will be taken off, so that it will be needlesse to give any rules about it. Yet to satisfie men in this, I shall set down this briefly. First, the taxes being known what they come to yearly, may be subtracted from the outmost yearly value of the Land or house ; and so what remains, you may safely purchase according to the rules aforesaid.

Yet since they may be taken off in good time, I would wish no man to be over-hasty to sell thus ; but at least to divide the burthen of these taxes, between his Customer and himself.

THere is another way of purchasing Land or Houses, by buying Lives therein, And this is the ordinary rule for it. One Life in any thing is accounted of equall worth to a Lease of seven years, Two Lives are worth as much as a Lease of 14 years. Three Lives are worth as much as a Lease of 21 years. And so still increasing by seven years for every Life.

But

But this way of reckoning seemes to me somewhat unequall, since one or two may live as long as eight or ten, why should there be so great a difference accounted? I confesse a mans life is very uncertain, and therefore I would wish any to take heed how they deale in such a way of purchasing: but yet considering on the one side, that by this means one is provided for as long as he lives, and when he is dead he need take no care: and on the other side, that if he be any thing young, or likely to live at all, he may live 20 or 30 years, what reason is there that the seller should be at so much hazard, as to venture 30 to 7 for a single Life?

Again, though two are better then one, *A threefold Cord is not easily broken*, yet it is not altogether so in mens lives, but many times three or four may die sooner then one, herein the buyer runs some hazard, which though with more reason then the seller before, yet it is fit he should have some consideration for it.

Therefore in my minde it were more

equall, if a single life were rated as a Lease of 12 years, or 10 at the least ~~years~~, and so for any more Lives to decrease one year for every Life. And so they will be worth, as in this little Table.

| | | | |
|------|---|----|----|
| 1) | | 12 | 10 |
| 2 | | 23 | 19 |
| 3 | | 33 | 27 |
| 4 | | 42 | 34 |
| 5 | <i>Lives are of equall worth to a Lease of these Years, accor- ding to the foresaid Rules and Tables.</i> | 50 | 40 |
| 6 | | 57 | 45 |
| 7 | | 63 | 49 |
| 8 | | 68 | 52 |
| 9 | | 72 | 54 |
| 10 | | 75 | 55 |
| 11 | | 77 | |
| 12) | | 78 | |

Thus much for these pre-considerations, I shall now set the Tables before you, shewing you the true value of any thing according to these Rules and Rates.

But

But in the first place, I shall set before you the manner of the construction and calculation of these tables, that so I may leave no just exceptions against what I have said, or shall say in this point.

The best & most artificial way to make these Tables, is to finde certain numbers in continual proportion decreasing, according to the rate of the Interest propounded, which Numbers may shew the true worth of one pound principal at the end of any number of years. And then by addition of all these numbers one to the other, the fore-said Table of Purchases from year to year is produced, which because they come out all in *Decimalls* of pounds, you may afterward reduce into pounds, shillings, and pence.

Thus let the rate of the Interest propounded be 6 in the 100, these numbers will be thus found.

As 106 li. : to 100 :: 1 li. : to 0,9434

You may increase these fractions as far as you will for the more exactness.

(30)

And thus much is 1 pound worth at the end of one year.

Then for the second year,

As 106, to 100 ; so 9434, to ,8900 :
which is the worth of one pound at the end of two years, so these two added together make 1,8334, which is the worth of one pound Annuity to continue two years.

So again do for the third year.

As 106 to 100 ; so ,8900 to ,8396.
which added to the former makes 2,6730
which is the value of three years.

And so you must do for every other year, as long as you make your Table for.

As you may see by this short Table of 7 years at 6 in the hundred.

The

| <i>The decrease or worth of the Rever- sion.</i> | <i>The worth of the Pur- chase by Addition.</i> |
|--|---|
| 1 59434 | 0,9434 |
| 2 58900 | 1,8334 |
| 3 58396 | 2,6730 |
| 4 57921 | 3,4651 |
| 5 57472 | 4,2123 |
| 6 57050 | 4,9173 |
| 7 56651 | 5,5824 |

Thus there is nothing difficult, but onely the reducing of these numbers into the more known value of pounds, shillings, and pence, which may be performed by this Table.

Note that I have abreviated this table to four places, considering this will be sufficient exactness, shewing the true value of one pound to the tenth part of

a farthing ; and it is so much more easie in many other propositions, which I have shewed, to be wrought thereby. Also to make it more ready for you, I have set down the fractions from a farthing to a shilling in single farthings.

A

A Table of Decimall Fractions, shewing the proportion of any number of shillings, pence, or farthings to a pound. The pound being divided into 10000 parts.

| shil. | parts | d. | q. | parts | d. | q. | parts |
|-------|-------|----|----|-------|----|----|-------|
| 19 | 9500 | 11 | 3 | 0490 | 5 | 3 | 0240 |
| 18 | 9000 | 11 | 2 | 0479 | 5 | 2 | 0229 |
| 17 | 8500 | 11 | 1 | 0469 | 5 | 1 | 0219 |
| 16 | 8000 | 11 | 0 | 0458 | 5 | 0 | 0208 |
| 15 | 7500 | 10 | 3 | 0448 | 4 | 3 | 0198 |
| 14 | 7000 | 10 | 2 | 0437 | 4 | 2 | 0188 |
| 13 | 6500 | 10 | 1 | 0427 | 4 | 1 | 0177 |
| 12 | 6000 | 10 | 0 | 0417 | 4 | 0 | 0167 |
| 11 | 5500 | 9 | 3 | 0406 | 3 | 3 | 0156 |
| 10 | 5000 | 9 | 2 | 0396 | 3 | 2 | 0146 |
| 9 | 4500 | 9 | 1 | 0385 | 3 | 1 | 0135 |
| 8 | 4000 | 9 | 0 | 0375 | 3 | 0 | 0125 |
| 7 | 3500 | 8 | 3 | 0365 | 2 | 3 | 0115 |
| 6 | 3000 | 8 | 2 | 0354 | 2 | 2 | 0104 |
| 5 | 2500 | 8 | 1 | 0344 | 2 | 1 | 0094 |
| 4 | 2000 | 8 | 0 | 0333 | 2 | 0 | 0083 |
| 3 | 1500 | 7 | 3 | 0323 | 1 | 3 | 0073 |
| 2 | 1000 | 7 | 2 | 0312 | 1 | 2 | 0063 |
| 1 | 0500 | 7 | 1 | 0302 | 1 | 1 | 0052 |
| | | 7 | 0 | 0293 | 1 | 0 | 0042 |
| | | 6 | 3 | 0281 | 0 | 3 | 0031 |
| | | 6 | 2 | 0271 | 0 | 2 | 0021 |
| | | 6 | 1 | 0260 | 0 | 1 | 0010 |
| | | 6 | 0 | 0250 | 0 | 0 | 0000 |

Or if you like not these decemial Fractions, you may reduce the one pound into pence or farthings, and work as before. Thus if in pence.

As 106li. to 100li. so 240d. to 226d. $\frac{4}{100}$

Which reduced into shillings and pence, is 18 shillings, 10 pence, 2 farthings *ferè*.

Or if you reduce the 20 shillings into farthings,

As 106li. to 100 li. so 960q. to 905q. $\frac{79}{100}$

Which reduced, is as before 18 shillings, 10 pence, 2 farthings, *ferè*

But in this if you proceed to make the Table for many years, you must have some respect to the fraction left; which is best by adding a cypher or two to the Divident, and so they will come in tens or hundred parts of a peny or farthing.

Now these Tables of Reversion being added together, make up the Tables of purchase. But I have not expressed these
Tables

Tables of Reversion; because I have made little use of them, onely in making the other Tables. If any would make use of them, or any part of them, they may easily take them out of the Tables of Purchase by Substraction, as I shall shew in its place.

Yet because this way is very tedious, and subject to errour, by reason of the many divisions and additions, if there be not great care had therein, and one fault herein may produce many; those who have skill in the use of L. garithms may thereby finde out the true value of any thing for any number of yeares, without respect had to the former years, which will be a shorter way, and serve as a proof to the Tables, in case of any doubt.

As now for example.

Let it be required to know the true value of a Lease of land to continue seven years after he rate of six in the hundred.

First, take the Logarithme of 100,
from

from the Logarithme of 100 and the rate of Interest added together, which in this example is 106.

Secondly, multiply this Logarithme by the number of years; which in this example is 7.

Thirdly, divide 100 by the rate of the Interest, which is 6, and it will produce 16,6667; then take the Logarithme hereof, and adde it to the former Logarithme, the product whereof will yield the Logarithm of the Arrerages with the said summe for that time.

Fourthly, finde out the true number of these Arrerages, and out of them subtract the proportionall part of 100 before found, according to the rate of the Interest; so you shall have the bare Arrerages for that proportionall part:

Lastly, take the Logarithme of these last Arrerages, and subtract from them the Logarithme found by the Multiplication of the years (in the second rule) so you shall have the Logarithme of the true value of these Arrerages in ready money; the true number whereof being found out and reduced into pounds, shillings,

(37)

Shillingst and pence, may be used as any number in the Tables.

106 Logarithme 2,0253058

100 Logarithme 2,0000000

Rests by Substraction 0,0253058

which multiplied by 7 7

Comes to 0,1771406

16,6667 Logarithme add. 1,2218487

Yields 1,3989893

This is the Logarithme of

25,0605

From which 16,6667 subtracted,

Rests 08,3938

8,3938 Logarithme 0,9239595

Logarithme by Multi-
plication of Years sub- }
tracted, 0,1771406

Rests 0,7468189

Which is the Logarithme of 5,5824,

as

from the Logarithme of 100 and the rate of Interest added together, which in this example is 106.

Secondly, multiply this Logarithme by the number of years; which in this example is 7.

Thirdly, divide 100 by the rate of the Interest, which is 6, and it will produce 16,6667; then take the Logarithme hereof, and adde it to the former Logarithme, the product whereof will yield the Logarithm of the Arerages with the said summe for that time.

Fourthly, finde out the true number of these Arrerages, and out of them subtract the proportionall part of 100 before found, according to the rate of the Interest; so you shall have the bare Arrerages for that proportionall part:

Lastly, take the Logarithme of these last Arrerages, and subtract from them the Logarithme found by the Multiplication of the years (in the second rule) so you shall have the Logarithme of the true value of these Arrerages in ready money; the true number whereof being found out and reduced into pounds, shillings,

(37)

Shillingst and pence, may be used as any number in the Tables.

| | |
|----------------|-----------|
| 106 Logarithme | 2,0253058 |
| 100 Logarithme | 2,0000000 |

| | |
|-----------------------|-----------|
| Rests by Substraction | 0,0253058 |
| which multiplied by 7 | 7 |

| | |
|-------------------------|-----------|
| Comes to | 0,1771406 |
| 16,6667 Logarithme add. | 1,2218487 |

| | |
|--------|-----------|
| Yields | 1,3989893 |
|--------|-----------|

This is the Logarithme of

| | |
|------------|---------------------|
| | 25,0605 |
| From which | 16,6667 subtracted, |

| | |
|-------|---------|
| Rests | 08,3938 |
|-------|---------|

| | | |
|-------------------------|-----------|-----------|
| 8,3938 Logarithme | 0,9239595 | |
| Logarithme by Multi- | } | 0,1771406 |
| plication of Years sub- | | |
| tracted, | | |

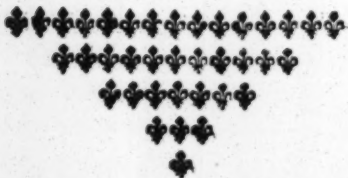
| | |
|-------|-----------|
| Rests | 0,7468189 |
|-------|-----------|

Which is the Logarithme of 5,5824,
as

(38)

as in the little Table aforesaid, which
reduced, is 5 pounds, 11 shillings,
7 pence, 3 farthings, and somewhat
more, which I have set down
in my Table, 5 pounds, 11
shillings, 8 pence, not
accounting any Fra-
ctions under a
peny.

A





A

Table shewing the
 true value of one pound
 yearly Rent, to continue
 any number of years under
 31, and from thence to 100
 years, increasing by every
 tenth year, after the Rates
 of 5, 6, 7, 8, 9, 10, and 12
 in the hundred, reckoning
 Interest upon Interest.



Purchase of Annuities at 5 per Centum.

| | | li. sh. d. | | | li. sh. d. |
|--|----|------------|---|------------------------------|------------|
| <i>The number of Years to be purchased</i> | 1 | 0 19 00 | <i>The worth of one pound Annuity.</i> | 22 | 13 03 03 |
| | 2 | 1 17 02 | | 23 | 13 09 10 |
| | 3 | 2 14 05 | | 24 | 13 16 00 |
| | 4 | 3 10 11 | | 25 | 14 01 11 |
| | 5 | 4 06 07 | | 26 | 14 07 06 |
| | 6 | 5 01 06 | | 27 | 14 12 11 |
| | 7 | 5 15 09 | | 28 | 14 18 00 |
| | 8 | 6 09 03 | | 29 | 15 02 10 |
| | 9 | 7 02 02 | | 30 | 15 07 05 |
| | 10 | 7 14 03 | | 31 | 15 12 00 |
| | 11 | 8 06 02 | | <i>In tens of year s</i> | |
| | 12 | 8 17 03 | | 40 | 17 02 05 |
| | 13 | 9 07 11 | | 50 | 18 05 01 |
| | 14 | 9 18 00 | | 60 | 18 18 07 |
| | 15 | 10 07 08 | | 70 | 19 06 10 |
| | 16 | 10 16 09 | | 80 | 19 11 11 |
| | 17 | 11 05 06 | | 9 | 19 15 00 |
| | 18 | 11 13 10 | | 100 | 19 16 00 |
| | 19 | 12 01 09 | | | |
| | 20 | 12 09 03 | | | |
| | 21 | 12 16 05 | | | |
| | | | <i>The number of Years to be purchased.</i> | | |

The number of Years to be purchased.

Purchase of Annuities at 6 per Centum.

| li. sh. d. | | | | li. sh. d. | | | |
|------------|----|----|----|---------------------------------|----|----|----|
| 1 | 0 | 18 | 10 | 12 | 12 | 00 | 10 |
| 2 | 1 | 16 | 08 | 23 | 12 | 06 | 01 |
| 3 | 2 | 13 | 06 | 24 | 12 | 11 | 00 |
| 4 | 3 | 09 | 04 | 25 | 13 | 15 | 08 |
| 5 | 4 | 04 | 03 | 26 | 13 | 00 | 01 |
| 6 | 4 | 18 | 04 | 27 | 13 | 04 | 03 |
| 7 | 5 | 11 | 08 | 28 | 13 | 08 | 01 |
| 8 | 6 | 04 | 02 | 29 | 13 | 11 | 10 |
| 9 | 6 | 16 | 00 | 30 | 13 | 15 | 04 |
| 10 | 7 | 07 | 02 | 31 | 13 | 18 | 07 |
| 11 | 7 | 17 | 09 | <hr/> In tens of Years <hr/> | | | |
| 12 | 8 | 07 | 08 | 40 | 15 | 00 | 08 |
| 13 | 8 | 17 | 01 | 50 | 15 | 14 | 06 |
| 14 | 9 | 05 | 11 | 60 | 16 | 03 | 03 |
| 15 | 9 | 14 | 03 | 70 | 16 | 07 | 08 |
| 16 | 10 | 02 | 01 | 80 | 16 | 10 | 02 |
| 17 | 10 | 09 | 07 | 90 | 16 | 11 | 07 |
| 18 | 10 | 16 | 07 | 100 | 16 | 12 | 04 |
| 19 | 11 | 03 | 02 | | | | |
| 20 | 11 | 09 | 05 | | | | |
| 21 | 11 | 15 | 03 | | | | |

| | | | | | | | |
|--------------------------------------|--|--|--|---------------------------------|--|--|--|
| The number of Years to be purchased. | | | | The worth of one pound Annuity. | | | |
|--------------------------------------|--|--|--|---------------------------------|--|--|--|

*Purchase of Annuities at
7 per Centum.*

| li. sh. d. | | | | li. sh. d. | | | |
|------------|----|----|----|--|----|----|---|
| 1 | 0 | 18 | 08 | 22 | 11 | 01 | 3 |
| 2 | 1 | 16 | 01 | 23 | 11 | 05 | 5 |
| 3 | 2 | 12 | 06 | 24 | 11 | 09 | 5 |
| 4 | 3 | 07 | 09 | 25 | 11 | 13 | 1 |
| 5 | 4 | 02 | 00 | 26 | 11 | 16 | 6 |
| 6 | 4 | 15 | 04 | 27 | 11 | 19 | 6 |
| 7 | 5 | 07 | 09 | 28 | 12 | 02 | 9 |
| 8 | 5 | 19 | 05 | 29 | 12 | 05 | 7 |
| 9 | 6 | 10 | 04 | 30 | 12 | 08 | 2 |
| 10 | 7 | 00 | 06 | 31 | 12 | 10 | 8 |
| 11 | 7 | 10 | 00 | <hr/> <i>In tens of years.</i> <hr/> | | | |
| 12 | 7 | 18 | 10 | 40 | 13 | 06 | 7 |
| 13 | 8 | 07 | 02 | 50 | 13 | 15 | 8 |
| 14 | 8 | 14 | 11 | 60 | 14 | 00 | 9 |
| 15 | 9 | 02 | 02 | 70 | 14 | 03 | 2 |
| 16 | 9 | 08 | 11 | 80 | 14 | 04 | 5 |
| 17 | 9 | 15 | 03 | 90 | 14 | 05 | 1 |
| 18 | 10 | 01 | 02 | 100 | 14 | 05 | 5 |
| 19 | 10 | 06 | 08 | | | | |
| 20 | 10 | 11 | 11 | | | | |
| 21 | 10 | 16 | 08 | | | | |

| | |
|---|--|
| <i>The number of Years to be purchased.</i> | <i>The worth of one pound Annuity.</i> |
|---|--|

| | |
|---|--|
| <i>The number of Years to be purchased.</i> | <i>The worth of one pound Annuity.</i> |
|---|--|

*Purchase of Annuities at
8 per Centum.*

| li. sh. d. | | | | li. sh. d. | | | | |
|---|----|----|----|------------|-----------------------------|----|----|----|
| <i>The number of Years to be purchased.</i> | 1 | 0 | 18 | 06 | 22 | 10 | 04 | 0 |
| | 2 | 1 | 15 | 08 | 23 | 10 | 07 | 5 |
| | 3 | 2 | 11 | 06 | 24 | 10 | 10 | 7 |
| | 4 | 3 | 06 | 03 | 25 | 10 | 13 | 6 |
| | 5 | 3 | 19 | 10 | 26 | 10 | 16 | 3 |
| | 6 | 4 | 12 | 05 | 27 | 10 | 18 | 9 |
| | 7 | 5 | 04 | 01 | 28 | 11 | 01 | 0 |
| | 8 | 5 | 14 | 11 | 29 | 11 | 03 | 2 |
| | 9 | 6 | 04 | 11 | 30 | 11 | 05 | 2 |
| | 10 | 6 | 14 | 02 | 31 | 11 | 07 | 0 |
| | 11 | 7 | 02 | 09 | <i>In tens of Years</i> | | | |
| | 12 | 7 | 10 | 08 | 40 | 11 | 18 | 06 |
| | 13 | 7 | 18 | 01 | 50 | 12 | 04 | 08 |
| | 14 | 8 | 04 | 10 | 60 | 12 | 07 | 06 |
| | 15 | 8 | 11 | 02 | 70 | 12 | 08 | 10 |
| | 16 | 8 | 17 | 00 | 80 | 12 | 09 | 06 |
| | 17 | 9 | 02 | 05 | 90 | 12 | 09 | 09 |
| | 18 | 9 | 07 | 05 | 100 | 12 | 09 | 11 |
| | 19 | 9 | 12 | 01 | | | | |
| | 20 | 9 | 16 | 04 | | | | |
| | 21 | 10 | 00 | 04 | | | | |

| | | | |
|---|----|----|----|
| <i>The worth of one pound Annuity.</i> | | | |
| <i>The number of Years to be purchased.</i> | | | |
| 22 | 10 | 04 | 0 |
| 23 | 10 | 07 | 5 |
| 24 | 10 | 10 | 7 |
| 25 | 10 | 13 | 6 |
| 26 | 10 | 16 | 3 |
| 27 | 10 | 18 | 9 |
| 28 | 11 | 01 | 0 |
| 29 | 11 | 03 | 2 |
| 30 | 11 | 05 | 2 |
| 31 | 11 | 07 | 0 |
| <i>In tens of Years</i> | | | |
| 40 | 11 | 18 | 06 |
| 50 | 12 | 04 | 08 |
| 60 | 12 | 07 | 06 |
| 70 | 12 | 08 | 10 |
| 80 | 12 | 09 | 06 |
| 90 | 12 | 09 | 09 |
| 100 | 12 | 09 | 11 |

at

d.

3

5

5

1

6

6

9

7

2

8

1

5

.

.

7

8

9

2

5

1

5

The worth of one pound Annuity.

The number of Years to be purchased.

The worth of one pound Annuity.

The number of Years to be purchased.

The worth of one pound Annuity.

Purchase of Annuities at 9 per Centum.

| li. sh. d. | | | | li. sh. d. | | | | | | | | | | | | | | | |
|---|---|----|----|--|--|--|--|---|---|----|----|--|----|----|----|-----|----|----|----|
| <i>The number of Years to be purchased.</i> | | | | <i>The worth of one pound Annuity.</i> | | | | <i>The number of Years to be purchased.</i> | | | | <i>The worth of one pound Annuity.</i> | | | | | | | |
| | | | | | | | | <i>In tens of Years</i> | | | | | | | | | | | |
| | | | | | | | | 1 | 0 | 18 | 04 | 22 | 9 | 08 | 10 | 40 | 10 | 15 | 02 |
| | | | | | | | | 2 | 1 | 15 | 02 | 23 | 9 | 11 | 7 | 50 | 10 | 19 | 03 |
| | | | | | | | | 3 | 2 | 10 | 08 | 24 | 9 | 14 | 2 | 60 | 11 | 00 | 10 |
| | | | | | | | | 4 | 3 | 04 | 09 | 25 | 9 | 16 | 6 | 70 | 11 | 01 | 08 |
| | | | | | | | | 5 | 3 | 17 | 09 | 26 | 9 | 18 | 7 | 80 | 11 | 02 | 00 |
| | | | | | | | | 6 | 4 | 09 | 09 | 27 | 10 | 00 | 6 | 90 | 11 | 02 | 01 |
| | | | | | | | | 7 | 5 | 00 | 08 | 28 | 10 | 02 | 4 | 100 | 11 | 02 | 02 |
| | | | | | | | | 8 | 5 | 10 | 08 | 29 | 10 | 04 | 0 | | | | |
| | | | | | | | | 9 | 5 | 19 | 11 | 30 | 10 | 05 | 6 | | | | |
| | | | | | | | | 10 | 6 | 08 | 04 | 31 | 10 | 06 | 10 | | | | |
| | | | | | | | | 11 | 6 | 16 | 01 | | | | | | | | |
| | | | | | | | | 12 | 7 | 03 | 02 | | | | | | | | |
| | | | | | | | | 13 | 7 | 09 | 09 | | | | | | | | |
| | | | | | | | | 14 | 7 | 15 | 09 | | | | | | | | |
| | | | | | | | | 15 | 8 | 01 | 03 | | | | | | | | |
| | | | | | | | | 16 | 8 | 06 | 03 | | | | | | | | |
| | | | | | | | | 17 | 8 | 10 | 11 | | | | | | | | |
| | | | | | | | | 18 | 8 | 15 | 01 | | | | | | | | |
| | | | | | | | | 19 | 8 | 19 | 00 | | | | | | | | |
| 20 | 9 | 02 | 07 | | | | | | | | | | | | | | | | |
| 21 | 9 | 05 | 10 | | | | | | | | | | | | | | | | |

The number of Years to be purchased.

The worth of one pound Annuity.

*Purchase of Annuities at
10 per Centum.*

| li. sh. d. | | | li. sh. d. | | |
|---|----|---------|---|-----|----------|
| <i>The number of Years to be purchased.</i> | 1 | 0 18 02 | <i>The number of Years to be purchased.</i> | 22 | 8 15 5 |
| | 2 | 1 14 08 | | 23 | 8 17 7 |
| | 3 | 2 09 08 | | 24 | 8 19 8 |
| | 4 | 3 03 04 | | 25 | 9 01 6 |
| | 5 | 3 15 09 | | 26 | 9 03 2 |
| | 6 | 4 07 01 | | 27 | 9 04 8 |
| | 7 | 4 18 04 | | 28 | 9 06 1 |
| | 8 | 5 06 08 | | 29 | 9 07 4 |
| | 9 | 5 15 02 | | 30 | 9 08 6 |
| | 10 | 6 02 10 | | 31 | 9 09 7 |
| | 11 | 6 09 09 | <i>In tens of Years</i> | | |
| | 12 | 6 16 03 | | 40 | 9 15 07 |
| | 13 | 7 02 00 | | 50 | 9 18 04 |
| | 14 | 7 07 04 | | 60 | 9 19 04 |
| | 15 | 7 12 01 | | 70 | 9 19 09 |
| | 16 | 7 16 05 | | 80 | 9 19 11 |
| | 17 | 8 00 05 | | 90 | 9 19 11 |
| | 18 | 8 04 00 | | 100 | 10 00 00 |
| | 19 | 8 07 03 | | | |
| | 20 | 8 10 03 | | | |
| | 21 | 8 12 11 | | | |
| <i>The worth of one pound Annuity.</i> | | | <i>The worth of one pound Annuity.</i> | | |

The worth of one pound Annuity.

Purchase of Annuities at 12 per Centum.

| | li. | sh. | d. | | | li. | sh. | p. | |
|----|-----|-----|----|---------------------------------|---------------------|-----|-----|----|--------------------------------------|
| 1 | 0 | 17 | 10 | The worth of one pound Annuity. | 22 | 7 | 12 | 10 | The number of Years to be purchased. |
| 2 | 1 | 13 | 10 | | 23 | 7 | 14 | 04 | |
| 3 | 2 | 08 | 00 | | 24 | 7 | 15 | 08 | |
| 4 | 3 | 00 | 09 | | 25 | 7 | 16 | 10 | |
| 5 | 3 | 12 | 01 | | 26 | 7 | 17 | 16 | |
| 6 | 4 | 02 | 03 | | 27 | 7 | 18 | 10 | |
| 7 | 4 | 11 | 03 | | 28 | 7 | 19 | 08 | |
| 8 | 4 | 19 | 04 | | 29 | 8 | 00 | 05 | |
| 9 | 5 | 06 | 06 | | 30 | 8 | 01 | 01 | |
| 10 | 5 | 13 | 00 | | 31 | 8 | 01 | 08 | |
| 11 | 5 | 18 | 09 | | In tens of Years | | | | |
| 12 | 6 | 03 | 10 | | 40 | 8 | 04 | 10 | |
| 13 | 6 | 08 | 05 | | 50 | 8 | 06 | 00 | |
| 14 | 6 | 12 | 06 | | 60 | 8 | 06 | 06 | |
| 15 | 6 | 16 | 02 | | 70 | 8 | 06 | 07 | |
| 16 | 6 | 19 | 05 | | 80 | 8 | 06 | 08 | |
| 17 | 7 | 02 | 04 | | 90 | | | | |
| 18 | 7 | 04 | 11 | | 100 | | | | |
| 19 | 7 | 07 | 03 | | | | | | |
| 20 | 7 | 09 | 04 | | | | | | |
| 21 | 7 | 11 | 02 | | | | | | |

The worth of one pound Annuity.

The number of Years to be purchased.

The worth of one pound Annuity.



The Use of these Tables.

First, to know the price of any Annuity, to continue any number of years.

HAVING, according to the former observations, considered the nature of the thing you intend to buy, & so found out after what profit you may fitly lay out your money upon it, whether at 5, 6, 7, 8, 9, or 10 in the hundred, according to the certainty or uncertainty of the thing: then to cast up what the value of the purchase will be, according to that rate, you must do thus.

First, finde the rate of the gain you would have for your money at the head of the Table, and finde the years of the
con-

continuance of the Lease or Annuity on the side of the Table, and in that line under the foresaid rate, you shall finde what the purchase of one pound a year is worth, to continue the said number of years; by the which, with a little addition, you may finde the true value of any other prized yearly income, whether it be little or great.

As for Example.

What is a Lease of ten pounds yearly value, to continue 21 years, worth in ready money, after the rate of six in the hundred interest?

By the Table you see that one pound a year to continue 21 yeares, after the said rate of six for the hundred, is worth 11 pound, 15 shillings, 3 pence. So then ten pound a year is worth ten times as much, which may be thus easily found.

| | |
|---------------------------|-----------|
| Ten times 11 pound is | 110 00 00 |
| Ten times 15 shillings is | 007 10 00 |
| Ten times 3 pence is | 000 02 06 |

In all 117 12 06

The like you may do by any other prized Annuity for any other time, and at any other rate of profit for your money, as the nature of the thing requires.

Thus the like of an house for 21 years, being reckoned by the Table of 10 pound per Cent. for one pound or 20 shillings Annuity is worth 8 pound, 12 shillings, 11 pence; therefore 10 pound per Annum is worth ten times as much, which you may reckon as before,

| | |
|---------------------------|--------|
| Ten times 8 pound is | 80 0 0 |
| Ten times 12 shillings is | 06 0 0 |
| Ten times 11 pence is | 00 9 2 |

In all 86 9 2

But because men usually reckon bargains
D gains

gains of this nature by the yearly revenue of the thing, and use to say, such a thing is worth so many years purchase; this may also plainly and truly be done by the foresaid Tables: and though this way cannot be so exact as the other, yet for custome-sake take it thus.

The Tables are exactly cast up for one pound yearly revenue, at each of the said rates, so that in the summes set down therein, for every pound or 20 shillings you must reckon one years purchase; for ten shillings, half a years purchase, for five shillings, a quarter of a years purchase; and so for any summe under, proportionally.

Thus in the former example, you found that one pound, to continue 21 years, was worth 11 pound, 15 shillings, 3 pence, that is, 11 years purchase, and about three quarters of a years purchase, after which manner reckoning the ten pound yearly revenue. So,

| | |
|--------------------------------------|-----------|
| <i>Eleven times 10 pound is</i> | 110 00 00 |
| <i>And 3 quarters of 10 pound is</i> | 007 10 00 |
| | <hr/> |
| <i>In all</i> | 117 10 00 |

Which is somewhat less then the former ; because this way you cannot (as I said) reckon so exactly without some more trouble : for the Table shews you 11 pound, 15 shillings, 3 pence; and this way it is reckoned, as if it were but 11 pound, 15 shillings.

Though either of these wayes be exact enough for most men; and most questions of this nature ; yet if any desire to be more exact, they will finde some trouble, when either the Annuity or the numbers in these Tables do not make even pounds, or at least common and known parts of a pound. In this case therefore if you will be curious to know the precise value, you must have recourse to the Table of Decimall Fractions, page 33. and thereby reduce both the price of the Annuity, and the price of

D 2

the

the purchase thereof set down in these Tables, into those fractions; and so multiplying one by the other, and reducing the product thereof again by the said Decimall Table, you shall have the true value of the purchase exactly.

Thus, let the Annuity be worth 55 pound, 12 shillings, 6 pence, and you desire to know the value thereof for 21 yeares after the rate of *Six per Centum*.

This Annuity reduced by the Decimall Table, will be 55 *li*. 625 *op*. and the Table shewes the worth of one pound for 21 years is 11 pound, 15 shillings, 3 pence, which reduced likewise is 11 *li*. 7625 *p*. now these two must be multiplied each by other; to which purpose set these two numbers thus,

11.7625

(53)

11.7625

55.6250

| | | |
|--------|--|------|
| 588 | | 1250 |
| 2352 | | 50 |
| 70575 | | 0 |
| 588125 | | |
| 588125 | | |

654.2890 | 6250

All the difficulty now is in finding out the value of this product. Therefore observe first, that all the figures which are beyond the pounds, or Integers in the Multiplier, are separated by the point (.) to distinguish them; and under this point there must be a perpendicular line drawn to cut off all the figures under them as uselesse.

Then from this line account four figures more in the product, (according to the places of the decimall Table) and there make a prick at 4; so the product appears to be 654*li*.2890. that is, 654
D 3 pound,

pound, 5 shillings, 9 pence, 2 farthings.

Or else to be more sure, cast it up as neer as you can the former way; and so you shall see whether 2, 3, or 4 of the first figures of the product stands for pounds, and the 4 next take for the fraction.

II.

There is another very necessary question easily resolved by these Tables, and that is, when any one doth ask of you such a summe of money, or so many yeers purchase for a parcel of land, lease, or house, to know what profit be allowes you for your money.

As now, Suppose you may have a lease of an house for 21 yeers, for eight yeers and an halfe purchase, what profit will your money yield you?

For this purpose; first, you must finde the number of yeers in the sides of the Tables, and look in the severall Tables untill you finde the said summe demanded, or the neereest you can finde to it,

it, then at the head of that Table, you shall finde the rate of the profit which your money brings you in.

Thus, if according to this example, you look over all the Tables, for eight yeers and an halfe purchase, that is 8 pounds, 10 shillings in the line of 21 years, you shall finde in the Table of 10 *per Centum*, at 21 years, 8 pounds, 12 shillings, 11 pence, which is the neereft summe that is to be found in all the Tables; and at the head of this Table you shall finde, your money brings you in by this bargain 10 in the hundred profit,

III.

All this which hath been spoken of purchasing of Leases, you may apply to Fines for the abatement of a greater or lesser part of the Rent of any thing.

Thus, if a Tenant would have 5, 10, or 20 pounds abated in his yearly Rent, it may be reckoned worth so ma-

ny years purchase as the Tables shew for.

But now suppose a Landlord demand an 100 pound fine for the Lease of an house for 21 years, besides the yearly Rent. I would know how much yearly Rent this 100 pound doth counter-value after the rate of 10 in the hundred.

In this case, you must take the summe set down in the Table, which for this example is 8 pounds, 12 shillings, 11 pence, and finde how many times it is contained in an 100 pound ; for so many pounds of yearly Rent it counter-values.

Now this you may do by reducing the said 8 pound, 12 shillings, 11 pence into pence ; so it 2075 pence. Likewise in an 100 pound are 24000 ; this divided by the foresaid 2075, yields 11 in the quotient, and there remains $\frac{1175}{2075}$, which is somewhat more then an half ; so that it is above 11 pound, 10 shillings.

If you will know this more exactly, multiply 1175 parts of a pound by 20, so you have 23500, which divided by

the

the former number 2075, yields 11 shillings in the quotient, and 675 remaining.

Again, if you multiply this 675 by 12, it yields 8100, which divided by 2075, yields almost 4 pence, wanting onely halfe a farthing.

So that this 100 pound fine should countervalue according to this rate, 11 pound, 11 shillings 4 pence *ferè* of yearly Rent.

Or you may have recourse to the Table of Reduction following, and thereby reduce the summe into tenths of pounds.

Thus the said 8 pounds, 12 shillings, 11 pence reduced, is 8 pound, 6458; with this divide the price of your Fine, an 100 pound, adding some cyphers thereto, as need shall be. So in this example, the Fine being 100 pound, you shall finde 11 pound 566, that is, 11 pounds, 11 shillings, 4 pence *ferè*; and so much yearly Rent doth an 100 pound Fine countervalue at the rate of ten pound in the hundred for 21 yeares.

D 5

I astly,

Lastly, you may see by the latter end of the Tables, what rate of profit your money yields you, buying any thing out right at any number of years purchase. Thus, at ten years purchase, your money yields you 10 *per Centum* profit, as you may see by that Table. At 12 years and an half purchase for the free simple, your money yields you 8 *per Centum* profit, as you may see by the end of the Table of 8 *per Centum*. And at 20 years purchase your money yields you but 5 *per Centum* profit.

And if you would know this more exactly, take this Rule, Divide an 100 by the number of years, the quotient will shew you the rate of the profit you have for your money.

~~Thus~~ ~~Table~~ 100 divided by 12 years, the price of the purchase of the free simple, yields, 8,3333, or 8 pound, 6 shillings, 8 pence for the rate of the profit.

So 100 divided by 18 years, yields 5,5555, which is 5 pound, 11 shillings, 11 pence for the rate of your profit.

Or else if you divide an 100 by the rate of the profit you look to have, in the

the buying of your purchase, you may see how many years purchase you may fully give for it.

Thus, Divide an 100 by 6, if that be the rate of the profit you desire in your purchase, and you shall finde 16 years and two thirds of a year, so many years purchase you may give, and yet make 6 in the hundred profit of your money.

By this a man having bought Land or Houses at any price, he may know which of the foresaid Tables he must use in the letting Leases thereof again, that he save or get by the bargain, as he shall think fit; or at least may know whether he gets or loses by the Leases he lets.



O F
Reversions.



Hus much for buying any thing which is presently to be possessed.

There are other kinde of purchases in Reversion, when the thing yields no profit for the present, till some considerable term of years be passed.

And in these bargains you must also look first into the quality of the thing, and the certainty thereof; and accordingly seek out the value thereof at a greater or lesser rate of Interest.

And to this purpose there might be the Tables set down, shewing the true value of one pound in Reversion after any number of years. But I suppose this need-

needleſſe, becauſe it is included in the former Tables, and may eaſily be extracted out of them: for if you begin at the head of any of theſe Tables, and ſubſtract the firſt line from the next following; and the ſecond from the third, &c. to the end of 31, you ſhall make a true Table of Reverſion, ſhewing the worth of one pound for any year to come.

But you may alſo know what the Reverſion of one pound will come to at any time to come without this trouble. For if you take the ſumme ſet down in the Tables, againſt the years of Reverſion deſired, and ſubſtract the ſumme next above it, from it, the difference will ſhew you the true value of 20 ſhillings ſo many yeares to come afterward.

Thus if you would know, what 20 ſhillings is worth 21 years hence, after the rate of money now, which is fix in the hundred.

Here the years of Reverſion being 21, and the rate of the Interſt fix in the hundred, you ſhall finde in that Table
againſt

against 21 years; 11 pounds, 15 shillings 3 pence, and in the line above it, 11 pounds, 9 shillings, 5 pence, which subtracted out of the former, there remains 5 shillings, 10 pence, which is the true value of 20 sh. 21 years hence.

And thus you may do at any other rate, & for any number of years to 31, by the former part of the Tables. But because the latter end of the Table proceeding by ten years will not do the like; therefore, I have made this little Table, which in a generall way, shewes both the increase and decrease of twenty shillings principall, after any number of years.

| The increase of 20 shillins. principal. | A Table of Reversions. | | | | | The decrease of twenty shillings. | | |
|---|------------------------|-----|----|----|----|---|---|---|
| | Rate of the Interest. | | | | | sh. d. q. | | |
| Pounds | Number of years. | | | | | | | |
| 2 | 15 | 12 | 9 | 7 | 6 | 10 | 0 | 0 |
| 4 | 30 | 24 | 18 | 15 | 12 | 5 | 0 | 0 |
| 8 | 45 | 36 | 27 | 22 | 18 | 2 | 6 | 0 |
| 16 | 60 | 48 | 36 | 30 | 24 | 1 | 3 | 0 |
| 32 | 70 | 60 | 45 | 37 | 30 | 0 | 7 | 2 |
| 64 | 90 | 72 | 54 | 45 | 36 | 0 | 3 | 3 |
| 128 | 105 | 84 | 63 | 52 | 42 | 0 | 2 | 0 |
| 256 | 120 | 96 | 72 | 60 | 48 | 0 | 1 | 0 |
| 512 | 135 | 108 | 81 | 67 | 54 | 0 | 0 | 2 |
| 1024 | 150 | 120 | 90 | 75 | 60 | 0 | 0 | 1 |

ings
t, II
sub-
ains
va-
rate,
y the
f the
g by
ere-
ble,
both
ent
nber

The



*The Use of this Table
is thus.*

First, finde out your rate of Interest at the head of the Table; then look down in that column till you finde out the number of years desired; and then against this number of years, in that same line, upon the left hand, you have the increase of 20 shillings, and upon the right hand the decrease or worth of the Reversion of the said 20 shillings for the number of years desired.

Thus in the middle column of the Table, which is cast up at the rate of 8 per Centum, you shall finde that in 27 years one pound or 20 shillings will increase to 8 pound, and the Reversion of one pound is worth but 2 shillings, 6 pence,

pence, at the said time of 27 yeares
hence

Note, If you cannot finde the number of years exactly, you may guesse at it by proportion.

Also, take notice, this general Table is not so exact as a particular Table hereof is, or ought to be, but yet will serve for the use I shall make thereof.

And having either of these wayes found the value of one pound, you may by addition, finde the value of ten or twenty pounds or any other summe for the like time; which subtracted out of the full worth of the thing, will give you the price of the Reversion thereof.

Yet because this way is somewhat troublesome, and may much deceive you in regard of the different value of Land, Money and Leases, I suppose this following to be the plainer and the better way.

I.

I.

If you are to purchase the Reversion of a piece of Land.

First, consider how many years purchase the Land is worth, if it were presently to be possessed, which is about 20 years purchase, for which account 20 pound.

Then look in the Table under the rate of six in the hundred, (which is the rate fittest for Leases of Land) how much the years, for which it is engaged, comes to.

Now substraft this out of the other, and the remaining summe will give you the value of the purchase, accounting the pounds for years, and the shillings and pence for parts of a year.

Thus for example, any piece of Land being worth 20 years purchase, being engaged by Lease, or otherwise, for 21 years, the Reversion will be worth eight years and a quarters purchase.

For the full value of it is 20 00 00

The Lease of 21 years at six } 11 15 03
in the hundred, comes to }

which subtracted, shews 08 04 09

That is, eight yeares, and almost a quarter of a years purchase.

II.

The like course you must take in purchasing the Reversion of Houses.

First, account their full value, and then subtract the worth of the years for which they are ingaged, at rates according to their goodnesse.

Thus reckoning a good new built house to be worth 12 years purchase, the reversion thereof after 21 years will be worth about three years, and a quarter, and half a quarters purchase.

For

| | li. | sh. | d. |
|---|-----|-----|----|
| For the full value being | 12 | 00 | 00 |
| The lease of 21 years at ten in the hundred comes to | 08 | 12 | 11 |
| which subtracted, shews, | 03 | 07 | 01 |

III.

A Tenant hath some term of years in a Lease, and either he or his Landlord desires to have his years increased to any certain number.

To finde the true worth of such a bargain, you need onely finde out by the Tables the true value of the whole number of years desired. Then finde out likewise the true value of the lesser number of years, that the Tenant hath already. Lastly, subtract the one from the other, and the remainder shews how many years purchase the thing is worth.

Thus a Lease of Land for 60 years, wherein the Tenant hath already a Lease of 21 years, is worth about 4 years and a half purchase.

For

| | li. | sh. | d. |
|---|-----|-----|----|
| For the whole 60 yeares, at 6 per Cent. is | 16 | 03 | 03 |
| The 21 yeares at the same rate of 6 per Cent. is | 11 | 15 | 03 |
| which substracted, rests | 04 | 08 | 00 |

In like manner, a Lease of an house for 60 years, wherein a Tenant hath 21 years already, is worth one year, and a quarters purchase, and somewhat more.

| | li. | sh. | d. |
|--|-----|-----|----|
| For 60 years after ten in the hundred, is worth | 09 | 19 | 04 |
| And 21 yeares at the same rate, is worth | 08 | 12 | 11 |
| which substracted, leaves | 01 | 06 | 05 |

That is, about one year, and one quarter of a years purchase: so that let the house be of what yearly Rent it will, the Lease will be worth one year, and
a

a quarter of a years purchase, and about a moneth over.

The like you may do for any other number of years.

But these extraordinary long Leases are not so profitable for the Landlord for they yield him but little more ready money then a Lease of 20 or 30 years shorter.

As now suppose a Landlord would make a Lease of Land up to 40 years wherein his Tenant hath 20 years to come, what may it be worth? you shall finde as before,

| | | | | |
|--|---|-----|-----|----|
| <i>The 40 years are worth at</i> | } | li. | sh. | d. |
| <i>6 per Centum,</i> | | 15 | 0 | 0 |
| <i>The twenty yeares at</i> | } | 11 | 15 | 0 |
| <i>the same rate are</i> | | | | |
| <i>worth</i> | | | | |
| <i>which subtracted, Rests</i> | | 03 | 5 | 0 |
| <i>Now the Lease for 60 yields but</i> | | 4 | 8 | 0 |

So that for little more then one years purchase he may save 20 yeares benefit to himself or his heires out of 60 years.

And

And if the Lease should be longer, as an 100 years, his damage would be worse.

So for a Lease of an house,

The 40 yeares at 10 per } li sh. d.
Centum are worth } 9 15 7

The twenty yeares at }
the same rate are } 8 10 3
worth }

which subtracted, Rest 1 5 4

The Lease for 60 years yielded 1 6 5

So that by this there will be 20 years saved out of the 60 for very little money. So great losse comes by selling such long Leases, or Reversions.

And these Reversions are somewhat considerable in a shorter time; as thus,

Suppose a mans Lease is out within 3 years, and he desires to have a new Lease of 21 years, to begin when his 3 years are out, what is this Lease worth in ready money?

To finde out the worth of this, consider

der the time he hath in his old Lease which is 3 years, and this added to 21 years, makes it 24 years. Then look out the full worth of these 24, and subtract from it the worth of the 3 years, the rest is the value of the said Lease in ready money.

Thus, if it be a Lease of Land,

| | | | |
|--------------------------|---|-----|-----|
| 24 years at 6 per Centum | 2 | li. | sh. |
| are worth | 5 | 12 | 11 |
| And 3 years are worth | | 2 | 13 |
| which subtracted, Rests | | 9 | 17 |

Which is ten years, lacking one half a quarters purchase, whereas Lease of 21 years presently to begin is worth 11 pound, 15 shillings, 3 pence that is, 11 years and three quarters purchase.

One question more, and so I shall conclude the use of these Tables :

A man hath his life in a parcell of Land, or in an house, and desires to have this Lease for life changed into a Lease of 21 years

A Lease of 21 years of } li. sh. d.
 Land, at 6 per Centum } 11 15 3
 is worth

His life (if strong & lusty) }
 may be worth as much }
 as a Lease of 10 years } 7 7 2
 which at the same rate }
 of 6 per Cent. is worth }

which subtracted, Rests 4 8 1

And so much is it worth to have his
 Lease altered, viz. 4 years, and almost
 half a years purchase.

Many other Rules and Tables con-
 cerning Annuities might be propounded,
 but these I think of most frequent use
 and necessary consequence, which thus
 you see may be all performed by this
 one sort of Tables.

But now since none of these bargains
 can be made without respect had to
 these or such like Tables of Interest, or
 Usury, wherein there must respect be
 had, not onely to simple Use, but to Use

upon use; I hope I may without offence to any speak a word or two in the defence of Usury.

The Argument I shall use is onely this; That if it be not onely lawfull but necessary to give and take Use upon Use; then, at least, it may be lawfull, though not necessary, to give or take moderate simple Use, according to the allowance of the times.

That it is not onely lawfull but necessary, to take or give Use upon Use, is plainly manifest in all these kinde of bargains, which cannot be made any other way. Now the necessity of these bargains is manifest every day, and the lawfulnessse of them cannot be questioned, being so plainly allowed in the Word of God.

As for the purchasing of Land and Houses, this is plain, there are many instances of it: And it was a good law, which it were well, if it were still in force; That a mans Lands, either while he were living, or presently after his death, was to be exposed to sale for the payment of his debts. Indeed the
rules

rules observed for the valuation of these purchases are not so plain. We read that *Abraham* paid 400 shekels of silver, for a field to bury his wife in, *Gen.* 23. which seemes to be a great price in those dayes. *Jeremiah* in the 32 Chap. of his Book paid but 7 shekels and 19 pieces of silver for the field he purchased.

The plainest law for these purchases is that in *Levit.* 25. 14, 15, 16. *If thou sell, &c. According to the number of years after the jubile thou shalt buy of thy neighbour, &c. According to the multitude of years, thou shalt increase the price thereof; and according to the fewnesse of years thou shalt diminish the price of it.*

So that they could purchase but (as it were) Leases of Land from Jubile to Jubile, which could be but 49 yeers at most; but how they ordered the price, according to the number of those years, it doth not appear.

I will not binde any to my conceit hereof, but when I was calculating the Table of 12 per Centum, perceiving it to

come up very neer to the highest price about 50 years, I presently thought that by some such rule and rate of Interest they might very fitly reckon the price of these purchases: for so by this account the longest Leases could be little better worth then a Lease of 50 years which was the period of the *Jubile*.

If any think this was too great a rate of Interest for them to take of their brethren: let them consider, that the Jews ever were, and yet are very greedy of taking great Interest, *viz.* of 20 or 30 *per Centum*. For otherwise *Nehemiah* did very little ease the people, in delivering the rich to release onely the hundredth part of that which they did exact from their poor brethren, *Chap. 5. 13.* which the Margine of our Bibles shew to be meant of the loane for the money, which if it were but at 5 or 10 *per Centum* would be but a shilling or two in an hundred pounds.

But however, the rate of the purchase was, this is plain, that there was a consideration to be had to the number of the years, and that the price was to

be thereafter: So that there was a kinde of implicate Interest used in these purchases.

But you will say, these bargains cannot come within the compasse of Usury, because the buyer herein stands to all hazards.

I answer, that either his hazard is very little, or for all hazards he is allowed a sufficient recompence; so that for the most part he is upon a surer way of gain then the other; and his gain in casual things is so much overplus, that a man may with good profit take up money at Interest to buy the bargains.

Indeed this point of *hazard* is much controverted in this case, some counting it unlawfull to contract for gain, unless they also contract for losse; as in partnership. And this they ground upon that Law, *Exod. 22. 14, 15.* If a man borrow ought of his neighbour, and it be hurt or die, the owner thereof not being with it, he shall surely make it good. But if the owner thereof be with it, he shall not make it good: if it be an

hired thing, it came for the hire.

But this Text speaks little to that purpose, the substance of this law being still in force, and thus to be understood: If a man hire an horse or such like to go a journey, or plough, or such like; and the horse by some fall or other accident die, or be hurt therein, having no ill usage by the borrower, then the Lender can recover no recompence, but onely the hire of his horse, as was agreed upon between them. But if the borrower misuse this beast, then he is liable to pay for it.

As for that phrase (*the owner being by, or not being by*) it may very well be understood of any other person, who is an indifferent witness between the two parties, to give testimony of the well or ill usage of the beast.

But though this be just, equall and usuall in things of this nature, yet it is not so in other things, which are more certain and not subject to such casualties. No man will sell an hundred pounds worth of any commodities, to be paid

paid a twelve moneth hence for it, upon condition that the buyer makes a good market thereof, and gets by the bargain: but will look for his money agreed for, at the due time; and ought to have it, though the buyer lose by the bargain. And though lending of money in this way is not altogether the same case, yet it is very like. Why may not he which lends an hundred pounds for a year be said to sell this hundred pounds worth of silver or gold, to be paid an hundred and six pounds of good money for it again at the years end? and why then may not he as justly demand his price agreed on at the due time, though the other have not made so good profit of it as he expected? as the other Creditour may demand his price agreed upon of his Debtor, though he have not made so good profit of it as he expected?

And to make this appear yet more equal, consider that money is such a commodity that cannot of it self be impaired, as most other things will, so that it is the borrowers own fault, (for the

most part) if there be any great losse; and therefore the Lender ought to be free from any damage by the foresaid law, and the borrower is to bear all the losse; *for the owner not being by, the borrower is to make the thing borrowed good.*

And yet for all this, as it is fit that in some cases, where there are extraordinary losses befall men, by the hand of God; the Creditour ought both in humanity and Christianity to have pity and patience toward his poor Debtor. So I hope there is no such Lenders of money, but will in the like cases be as forward as others, to approve themselves good and mercifull men. Otherwise, the best defence can be made for this course will not avail them, when God shall call them to an account, as he did that wicked servant for casting his fellow-servant into prison.

But for this conditionall contract for losse and gain, it is good for nothing but to embroil men in suits of law; or to incourage and impower ill minded men to cozen others of their estates.

But

But you will say, this kinde of Usury hath not onely been condemned by the most part of the best of men, but by God himselfe is expressly forbidden, and many curses and blessings pronounced by him in his Word to the keepers and breakers of this very law.

If this be so, the matter is not to be disputed, but upon survey of the sacred Statutes, I cannot finde them so strict and severe in this particular.

The chief law declared by God himselfe against Usury, is that in the 23 of *Deuteronomy*, verse 19. *Thou shalt not lend upon Usury to thy brother, Usury of money, Usury of victuals, Usury of any thing that is lent upon Usury.* Upon the breaking and keeping this law depends all the other promises and threats in the Scripture: therefore this place being cleared, all other Scriptures relating hereunto, will also be answered.

Now this at the first view seemes to be a generall law, forbidding all kinde of Usury. But I answer first, the outmost extent of this law, is that one Israelite might not lend upon Usury to another

Israelite. For in the very next verse they are permitted to lend upon Usury unto strangers, *verse 20. Unto a stranger thou mayest lend upon Usury, but unto thy brother thou mayest not lend upon Usury.* And I see no reason to understand by these strangers such whom they might oppress and destroy, as some would interpret it; since God gave them so many Items and Commands to be kinde to strangers. And how dear it cost the Family of *Saul*, and the whole Kingdome of *Israel* to do otherwise, you may read in the 1 Book of *Samuel*, 21 Chap.

Again secondly, this generall law of Usury to their brethren seemes to be restrained to their poor brethren in the 25 of *Leviticus*, 35, 36, 37 verses, *Exod. 22. 25.* so that it chiefly and principally, if not wholly and absolutely, belongs to them.

Thirdly, I see no reason, why this politick law belonging to the *Jews*, and fitted to their condition, place, and times, should take so fast hold of us, as some would make it, especially considering the many other laws of this nature,

ture, which are not pressed upon us by these men. As their buying of Lands, which were all to return to the old posterity in the year of *Jubile*, in *Levit. 25*. And that law of freedome from debts every seventh year, *Deut. 15. 1, 2, 3, 4*. which is parallel to this of Usury in all respects. For first, it is laid down generally in *verse 1, 2*. *Every Creditour that lendeth ought unto his neighbour, shall release it in the seventh year*. Secondly, Notwithstanding this, it is permitted to demand it of strangers in the 3 Verse. Thirdly, it is permitted to take it of the rich brother in the 4 Verse, *Save when there shall be no poor among you*. So that the force of these Lawes, and the equity thereof, is to keep them and us onely from oppression of the poor. And from hence our law may be derived, that a Book-debt, without bill or bond, cannot be recovered after seven years. Yet I hope no man will say, that in point of equity and conscience he is discharged from the payment thereof, if he hath wherewith to pay it; neither that his Creditour doth offend either against
 Gods

Gods law or mans, in requiring and receiving of him.

Fourthly, that this law against Usury was onely fitted to the state of the *Jews*, may be plain from the things forbidden to take Usury upon, which was victuals, and other things as well as money. So that there being few Merchants and Trades-men amongst them, Usury of money was very little necessary; and as for Usury of other things, it tended onely to the oppression of the poor. Who would not spit in that mans face, and count him not worthy to live, that having corn lying in store by him, would not lend his neighbour a bushell or two till his Harvest was reaped, a moneth or two after, without half a bushell for the use thereof? In such cases of common want and scarcity; it is not onely the duty of private men in charity to lend (if not give) to their poor neighbours, but the publick Magistrate ought to look to it, that there be no such wicked men as hoard and hide their corn: nay, more then this, in case of extream want and famine, it may be lawfull and lauda-

laudable for them to take the stores of corn into their own hands, and distribute them to every one, as need shall require.

And this was the reason that Usury was forbidden by many other States: *viz.* the *Greeks* and *Romans*; not because it was against the light of nature, but against the rules of policy. And though *Aristotle* saith, it is a monstrous thing for money to beget money, yet *Solomon* saith, *Money answereth all things*, *Eccl.* 10 19. and is the fittest thing of all others to be employed in Merchandize, and put out to Use.

In these times and places therefore, wherein there are many have so great stocks of money, which they have no way to employ; and others have wayes to employ money to profit, but want it; there may very well and fitly be a mutual and reciprocal advantage to both, by a moderate Interest upon money; which I hope I have plainly shewed to be allowed by the Lawes of God, and is permitted by the lawes of the most civil and well-ordered Countreys.

Yet

Yet I would have no man hereby harden his heart against his poor neighbour, and withhold his hand from lending freely to him : nor to repine at the low rate of Interest allotted by the State ; much lesſe to ſooth up himſelf in oppreſſion or extortion. Let ſuch know, though Uſury be lawfull, yet it is ſcarce laudable. And if any by their unjuſt courſes herein exceed the lawfull bounds, they deſerve to finde no favour with men, however God deals with them.

In this caſe therefore I would have all men to take example by the Apoſtle Paul, 1 Cor. 10.23. *All things are lawfull for me, but all things are not expedient.* This way may be expedient for ſome, which is not ſo for others. Our Saviour in the 21th. of *Matthew*, in the parable of the Talents, ſeems to allow the idle ſervant rather to have put his Talent out to others to Uſury, then to let it lie hid in the earth ; (though they deſerved moſt commendation that traded and gain'd therewith themſelves.) So then for young Orphans, Widows,
and

and old people, who cannot so well deal in the world for themselves, this way is not onely *lawful*, but *expedient*. And for such it is that I plead, who cannot so well speak for themselves: As for others, who out of an idle and covetous minde, would by this meanes live in the world like Drones in the hive, upon the sweat of others browes; I suppose they are scarce able to answer sufficiently for the defence of themselves, and therefore would wish them to take some other course.

And to this purpose there is one step higher, which they that will attain to perfection must endeavour after. Some things you see are *lawful*, some things are *expedient*; but some things are *excellent*. And these things we ought chiefly to follow. It may be *lawful* for all, and it may be *expedient* for some to lend upon Usury; but it is *excellent* for all to lend without Usury, and that especially to the poor. There are three sorts of men, upon whom we may lay out our money upon a different account. To the *rich* we may lend upon Usury, for
our

our own sake : to our Brethren and Friends we ought to lend freely , for their sakes : to the poor we ought to give freely , for Gods sake. He that with an holy wisdom thus shares out his estate, to these three sorts of persons, deserves not the black brand of an Usurer, but shall receive praise and profit both of God and men.

But the cries of the poor, will be very loud against those men, who, notwithstanding the lawes of God and men to the contrary, do use such extortion and oppression to the poorer sort of people, as to make them pay not onely 6, 8, or 10, but 20, 30, or 40 in the hundred in greater summes, and much more in lesler.

It hath been accounted a favourable extortion among them, to lend twenty shillings upon a very sufficient pawn for six pence for one moneth of 28 dayes, and six pence or eight pence for their Bill or Bond ; and so they make 13 shillings of their 20 in a year, which is, 65 pound of an hundred.

Others

Others lend out to the poorest sort of people twelve pence for a moneth, for one peny profit; and this, though it seem but little to some, yet by this means they may gain 13 pence with their shilling in a year, which comes to an 108 pounds, 6 shillings, 8 pence, for an hundred.

Nay, some have been so unconscionable, as to take a peny a week for the use of twelve pence; and so for the 52 weeks in the year, it comes to 4 shillings, 4 pence, which is 433 pound, 6 shillings, 8 pence for an hundred.

But others are more cautious of comming thus within the danger of the Statute, and let their money out at the lawful rate, onely the Bill-money increaseth their profit.

Again, others sell commodities to men at unreasonable rates, and then some of their partners buy it again for 20 or 30 in the hundred lesse; they being surely bound to pay the full price, and all their fees, and under-hand bribes beside.

Such

Such men as these are justly odious, and may expect, that all the curses, and reproaches against this sin, will fully and speedily fall upon them, except God give them grace to repent of it, and in some good sort to make restitution.

To remedie this evill, it hath been the custome of some Cities beyond the Sea, (and the endeavours of some honest men to effect the like in this) to have publick bankes of money for charitable uses, out of which the poor might at any time upon a sufficient pawn, borrow any small summe of money, and yet pay very little for Interest or charges; but onely so much as needs must be allowed towards the mainteining of some few Officers to dispose thereof.

Ten or twenty thousand pound in such a banke, might be a great relief to thirty or fourty thousand poor folkes within the compasse of a year; yea though they paid after the rate of five or six in the hundred. And so they who laid in the moneys into the banke, might
receive

receive 4 or 5 of it , and the rest go to the Officers for writing the bills, and delivering out the money and goods, which would be a great help to the poor, who are now forced to pay to their brokers after the rate of 30 or 40 pounds in the hundred ; and little or no hinderance to those well-minded persons , who should put in money to be thus employed, since they might receive within twenty or forty shillings a year as much as their money will yield them in the purchase of Land, or letting it out to Interest to others.

But I fear in these unsettled and troublesome times this will hardly be effected ; and which is worse, much money that hath been given to Halls and publique places for the benefit of poor men and young beginners, is now lost or spent , or converted to other uses, which is an high offence against God, an injury both to the dead and to the living, and an ignominy to themselves.

And therefore, that men may the better

take heed to themselves, both in giving
 and taking of the lawfull Interest, I
 have here added this Table of In-
 terest after the rate of six in the
 hundred, being the rate
 appointed by the State
 for these present
 times.

* *

*
—

 A



A New and Exact
Table of Interest, shewing
the true Interest due upon
any Sum of Money for
any time at the Rate
of 6 per Centum.

FOR the more exactnesse in this Table, in every Column the money is reckoned not only in pounds, shillings, and pence, (which is ordinary) but each penny is divided into an hundred parts; which, though it may seem somewhat strange at first, yet they are easily then reckoned into farthings, which are more usuall with us. For twenty five, which is a quarter of an hundred, make

make one farthing; fifty of these parts are an half-peny; and seventy five are three farthings.

This considered, there will be, I hope, no difficulty in the Table.



TABLES
OF
INTEREST

At Six *per* Centum.

Shill.

Pounds

Pounds

10
20
30
40
50
60
70
80
90
100

| | 1 day. | | | | 2 dayes | | | | 3 dayes | | | |
|---------------|--------|-----|----|---------|---------|-----|----|---------|---------|-----|----|----|
| | li. | sh. | d. | c. | li. | sh. | d. | c. | li. | sh. | d. | c. |
| Shill. | 5 | | | 1 | | | | 2 | | | | 3 |
| 10 | | | | 2 | | | | 4 | | | | 6 |
| 15 | | | | 3 | | | | 6 | | | | 9 |
| 1 | | | | 4 | | | | 8 | | | | 12 |
| 2 | | | | 8 | | | | 16 | | | | 24 |
| 3 | | | | 12 | | | | 24 | | | | 36 |
| 4 | | | | 15 | | | | 31 | | | | 47 |
| 5 | | | | 19 | | | | 39 | | | | 59 |
| 6 | | | | 23 | | | | 47 | | | | 71 |
| 7 | | | | 27 | | | | 55 | | | | 82 |
| 8 | | | | 31 | | | | 63 | | | | 94 |
| 9 | | | | 35 | | | | 71 | | | | 6 |
| 10 | | | | 39 | | | | 78 | | | | 18 |
| 20 | | | | 78 | | | | 1 58 | | | | 37 |
| 30 | | | | 1 18 | | | | 2 36 | | | | 55 |
| 40 | | | | 1 58 | | | | 3 15 | | | | 73 |
| 50 | | | | 1 9 | | | | 3 94 | | | | 91 |
| 60 | | | | 2 36 | | | | 4 7 | | | | 10 |
| 70 | | | | 2 7 | | | | 5 52 | | | | 28 |
| 80 | | | | 3 15 | | | | 6 31 | | | | 46 |
| 90 | | | | 3 55 | | | | 7 10 | | | | 65 |
| 100 | | | | 0 3 24 | | | | 0 7 82 | | | | 83 |
| 200 | | | | 0 7 89 | | | | 1 3 78 | | | | 67 |
| 300 | | | | 0 11 83 | | | | 1 11 67 | | | | 50 |
| 400 | | | | 1 3 78 | | | | 2 7 56 | | | | 34 |
| 500 | | | | 1 7 72 | | | | 3 3 4 | | | | 18 |
| 600 | | | | 1 11 67 | | | | 3 11 34 | | | | 1 |
| 700 | | | | 2 3 61 | | | | 4 7 22 | | | | 8 |
| 800 | | | | 2 7 56 | | | | 5 3 1 | | | | 60 |
| 900 | | | | 2 11 5 | | | | 5 11 61 | | | | 52 |
| 1000 | | | | 3 3 4 | | | | 6 6 90 | | | | 55 |

| | | 4 dayes. | | | | 5 dayes | | | | 6 dayes | | | |
|--------|------|----------|-----|----|------|---------|-----|----|------|---------|------|----|--------|
| | | li. | sh. | d. | c. | li. | sh. | d. | c. | li. | sh. | d. | c. |
| Shill. | 5 | | | | 4 | | | | 5 | | | | 6 |
| | 10 | | | | 8 | | | | 10 | | | | 12 |
| | 15 | | | | 12 | | | | 15 | | | | 18 |
| | 1 | | | | 15 | | | | 19 | | | | 23 |
| | 2 | | | | 31 | | | | 39 | | | | 47 |
| | 3 | | | | 47 | | | | 59 | | | | 71 |
| | 4 | | | | 63 | | | | 78 | | | | 94 |
| | 5 | | | | 78 | | | | 98 | 1 | 18 | | 118 |
| | 6 | | | | 94 | | | 1 | 18 | 1 | 42 | | 142 |
| Pounds | 7 | | | 1 | 10 | | | 1 | 38 | 1 | 69 | | 169 |
| | 8 | | | 1 | 26 | | | 1 | 58 | 1 | 89 | | 189 |
| | 9 | | | 1 | 42 | | | 1 | 77 | 2 | 13 | | 213 |
| | 10 | | | 1 | 57 | | | 1 | 97 | 3 | 36 | | 336 |
| | 20 | | | 3 | 15 | | | 3 | 94 | 4 | 73 | | 473 |
| | 30 | | | 4 | 73 | | | 5 | 91 | 7 | 10 | | 710 |
| | 40 | | | 6 | 31 | | | 7 | 89 | 9 | 46 | | 946 |
| | 50 | | | 7 | 89 | | | 9 | 86 | 11 | 83 | | 1183 |
| | 60 | | | 9 | 46 | | | 11 | 83 | 1 | 220 | | 1220 |
| Pounds | 70 | | | 11 | 4 | | | 1 | 180 | 1 | 457 | | 1457 |
| | 80 | | | 1 | 062 | | | 1 | 378 | 1 | 693 | | 1693 |
| | 90 | | | 1 | 220 | | | 1 | 575 | 1 | 930 | | 1930 |
| | 100 | | | 1 | 378 | | | 1 | 772 | 1 | 1167 | | 21167 |
| | 200 | | | 2 | 756 | | | 3 | 345 | 3 | 1134 | | 31134 |
| | 300 | | | 3 | 1134 | | | 4 | 1118 | 5 | 101 | | 4101 |
| | 400 | | | 5 | 312 | | | 6 | 690 | 7 | 1068 | | 51068 |
| | 500 | | | 6 | 690 | | | 8 | 263 | 9 | 1035 | | 61035 |
| | 600 | | | 7 | 1068 | | | 9 | 1035 | 11 | 102 | | 7102 |
| Pounds | 700 | | | 9 | 246 | | | 11 | 68 | 13 | 969 | | 81069 |
| | 800 | | | 10 | 624 | | | 13 | 180 | 15 | 936 | | 91036 |
| | 900 | | | 11 | 102 | | | 14 | 953 | 17 | 94 | | 101094 |
| | 1000 | | | 13 | 180 | | | 16 | 526 | 19 | 871 | | 110871 |

| | | 7 days | | | | 8 days | | | | 9 days. | | | |
|-------|------|--------|--------|----|----|--------|--------|----|----|---------|--------|----|----|
| | | li. | sh. | d. | c. | li. | sh. | d. | c. | li. | sh. | d. | c. |
| yes | | | | | | | | | | | | | |
| d. c. | | | | | | | | | | | | | |
| 6 | 5 | | | 7 | | | | 8 | | | | 9 | |
| 12 | 10 | | | 13 | | | | 15 | | | | 17 | |
| 18 | 15 | | | 20 | | | | 23 | | | | 26 | |
| 23 | 1 | | | 27 | | | | 31 | | | | 35 | |
| 47 | 2 | | | 55 | | | | 63 | | | | 71 | |
| 71 | 3 | | | 82 | | | | 94 | | 1 | 06 | | |
| 94 | 4 | 1 | 10 | | | 1 | 26 | | | 1 | 42 | | |
| 1 18 | 5 | 1 | 38 | | | 1 | 57 | | | 1 | 77 | | |
| 1 42 | 6 | 1 | 65 | | | 1 | 89 | | | 2 | 13 | | |
| 1 65 | 7 | 1 | 93 | | | 2 | 20 | | | 2 | 48 | | |
| 1 89 | 8 | 2 | 21 | | | 2 | 52 | | | 2 | 84 | | |
| 2 13 | 9 | 2 | 48 | | | 2 | 84 | | | 3 | 19 | | |
| 3 36 | 10 | | 2 76 | | | 3 | 15 | | | 3 | 55 | | |
| 4 73 | 20 | | 5 52 | | | 6 | 31 | | | 7 | 10 | | |
| 7 10 | 30 | | 8 28 | | | 9 | 46 | | | 10 | 65 | | |
| 9 46 | 40 | 11 | 4 | | | 1 | 0 62 | | | 1 | 2 20 | | |
| 11 83 | 50 | 1 | 1 80 | | | 1 | 3 78 | | | 1 | 5 75 | | |
| 2 20 | 60 | 1 | 4 57 | | | 1 | 6 93 | | | 1 | 9 30 | | |
| 4 57 | 70 | 1 | 7 33 | | | 1 | 10 09 | | | 2 | 0 85 | | |
| 6 93 | 80 | 1 | 10 09 | | | 2 | 1 24 | | | 2 | 4 40 | | |
| 9 30 | 90 | 2 | 00 85 | | | 2 | 4 40 | | | 2 | 7 95 | | |
| 11 67 | 100 | 2 | 3 61 | | | 2 | 7 56 | | | 2 | 11 50 | | |
| 11 34 | 200 | 4 | 7 23 | | | 5 | 3 12 | | | 5 | 11 | | |
| 10 1 | 300 | 6 | 10 84 | | | 7 | 10 68 | | | 8 | 10 52 | | |
| 10 68 | 400 | 9 | 2 46 | | | 10 | 6 24 | | | 11 | 10 | | |
| 10 35 | 500 | 11 | 6 8 | | | 13 | 1 80 | | | 14 | 9 53 | | |
| 10 2 | 600 | 13 | 9 69 | | | 15 | 9 36 | | | 17 | 9 4 | | |
| 9 69 | 700 | 16 | 1 31 | | | 18 | 4 93 | | | 1 | 0 8 54 | | |
| 9 36 | 800 | 18 | 4 93 | | | 1 | 1 0 49 | | | 1 | 3 8 5 | | |
| 9 4 | 900 | 1 | 0 8 54 | | | 1 | 3 8 05 | | | 1 | 6 7 56 | | |
| 8 71 | 1000 | 1 | 3 0 16 | | | 1 | 6 3 61 | | | 1 | 9 7 06 | | |

| | 10 dayes | | | | 20 dayes | | | | 30 dayes | | | |
|---------------|----------|-----|----|----------|----------|-----|----|----------|----------|-----|----|----------|
| | li. | sh. | d. | c. | li. | sh. | d. | c. | li. | sh. | d. | c. |
| <i>Shill.</i> | | | | | | | | | | | | |
| 5 | | | | 10 | | | | 19 | | | | 29 |
| 10 | | | | 20 | | | | 39 | | | | 59 |
| 15 | | | | 30 | | | | 59 | | | | 88 |
| 1 | | | | 39 | | | | 78 | | | | 1 18 |
| 2 | | | | 78 | | | 1 | 57 | | | | 2 36 |
| 3 | | | 1 | 18 | | | 2 | 36 | | | | 3 55 |
| 4 | | | 1 | 57 | | | 3 | 15 | | | | 4 73 |
| 5 | | | 1 | 97 | | | 3 | 94 | | | | 5 91 |
| 6 | | | 2 | 36 | | | 4 | 73 | | | | 7 10 |
| 7 | | | 2 | 76 | | | 5 | 52 | | | | 8 28 |
| 8 | | | 3 | 15 | | | 6 | 31 | | | | 9 46 |
| 9 | | | 3 | 55 | | | 7 | 10 | | | | 10 65 |
| 10 | | | 3 | 94 | | | 7 | 89 | | | | 11 83 |
| 20 | | | 7 | 89 | | | 1 | 3 78 | | | 1 | 11 67 |
| 30 | | | 11 | 83 | | | 1 | 11 67 | | | 2 | 11 50 |
| 40 | | | 1 | 3 78 | | | 2 | 7 36 | | | 3 | 11 34 |
| 50 | | | 1 | 7 72 | | | 3 | 3 45 | | | 4 | 11 17 |
| 60 | | | 1 | 11 67 | | | 3 | 11 34 | | | 5 | 11 1 |
| 70 | | | 2 | 3 61 | | | 4 | 7 23 | | | 6 | 10 84 |
| 80 | | | 2 | 7 56 | | | 5 | 3 12 | | | 7 | 10 68 |
| 90 | | | 2 | 11 50 | | | 5 | 11 1 | | | 8 | 10 52 |
| 100 | | | 3 | 3 45 | | | 6 | 6 90 | | | 9 | 10 35 |
| 200 | | | 6 | 6 90 | | | 13 | 1 80 | | | 19 | 8 71 |
| 300 | | | 9 | 10 35 | | | 19 | 8 71 | | | 1 | 9 7 06 |
| 400 | | | 13 | 1 80 | | | 1 | 6 3 61 | | | 1 | 19 5 42 |
| 500 | | | 16 | 5 25 | | | 1 | 12 10 52 | | | 2 | 9 3 78 |
| 600 | | | 19 | 8 71 | | | 1 | 19 5 42 | | | 2 | 19 2 13 |
| 700 | | | 1 | 3 0 16 | | | 2 | 6 0 32 | | | 3 | 9 0 49 |
| 800 | | | 1 | 6 3 61 | | | 2 | 12 7 23 | | | 3 | 18 10 84 |
| 900 | | | 1 | 9 7 06 | | | 2 | 19 2 13 | | | 4 | 8 9 20 |
| 1000 | | | 1 | 12 10 52 | | | 3 | 5 9 44 | | | 4 | 18 7 56 |

(101)

| | | 1 Moneth | 2 Moneths | 3 Moneths. |
|--|------|---------------|---------------|---------------|
| | | li. sh. d. c. | li. sh. d. c. | li. sh. d. c. |
| | 5 | 30 | 60 | 90 |
| | 10 | 60 | 1 20 | 1 80 |
| | 15 | 90 | 1 80 | 2 70 |
| | 1 | 1 20 | 2 40 | 3 60 |
| | 2 | 2 40 | 4 80 | 7 20 |
| | 3 | 3 60 | 7 20 | 10 80 |
| | 4 | 4 80 | 9 60 | 1 2 40 |
| | 5 | 6 00 | 1 0 00 | 1 8 00 |
| | 6 | 7 20 | 1 2 40 | 1 9 60 |
| | 7 | 8 40 | 1 4 80 | 2 1 20 |
| | 8 | 9 60 | 1 7 20 | 2 4 80 |
| | 9 | 10 80 | 1 9 60 | 2 8 40 |
| | 10 | 1 0 0 | 2 0 0 | 3 0 0 |
| | 20 | 2 0 0 | 4 0 0 | 6 0 0 |
| | 30 | 3 0 0 | 6 0 0 | 9 0 0 |
| | 40 | 4 0 0 | 8 0 0 | 12 0 0 |
| | 50 | 5 0 0 | 10 0 0 | 15 0 0 |
| | 60 | 6 0 0 | 12 0 0 | 18 0 0 |
| | 70 | 7 0 0 | 14 0 0 | 1 1 0 0 |
| | 80 | 8 0 0 | 16 0 0 | 1 4 0 0 |
| | 90 | 9 0 0 | 18 0 0 | 1 7 0 0 |
| | 100 | 10 0 0 | 1 0 0 0 | 1 10 0 0 |
| | 200 | 1 00 0 0 | 2 0 0 0 | 3 00 0 0 |
| | 300 | 1 10 0 0 | 3 0 0 0 | 4 10 0 0 |
| | 400 | 2 00 0 0 | 4 0 0 0 | 6 00 0 0 |
| | 500 | 2 10 0 0 | 5 0 0 0 | 7 10 0 0 |
| | 600 | 3 00 0 0 | 6 0 0 0 | 9 00 0 0 |
| | 700 | 3 10 0 0 | 7 0 0 0 | 10 10 0 0 |
| | 800 | 4 00 0 0 | 8 0 0 0 | 12 00 0 0 |
| | 900 | 4 10 0 0 | 9 0 0 0 | 13 10 0 0 |
| | 1000 | 5 00 0 0 | 10 0 0 0 | 15 00 0 0 |

| | 4 Moneths | | | | 5 Moneths | | | | 6 Moneths | | | |
|---------|---------------|------|---|----|---------------|----|---|----|---------------|----|---|----|
| | li. sh. d. c. | | | | li. sh. d. c. | | | | li. sh. d. c. | | | |
| Shill. | 5 | | 1 | 20 | | | 1 | 50 | | | 1 | 80 |
| | 10 | | 2 | 40 | | | 3 | 00 | | | 3 | 60 |
| | 15 | | 3 | 60 | | | 4 | 50 | | | 5 | 40 |
| Pounds | 1 | | 4 | 80 | | | 6 | 0 | | | 7 | 20 |
| | 2 | | 9 | 60 | | 1 | 0 | 0 | | 1 | 2 | 40 |
| | 3 | 1 | 2 | 40 | | 1 | 6 | 0 | | 1 | 9 | 60 |
| | 4 | 1 | 7 | 20 | | 2 | 0 | 0 | | 2 | 4 | 80 |
| | 5 | 2 | 0 | 00 | | 2 | 6 | 0 | | 3 | 0 | 00 |
| | 6 | 2 | 4 | 80 | | 3 | 0 | 0 | | 3 | 7 | 20 |
| | 7 | 2 | 9 | 60 | | 3 | 6 | 0 | | 4 | 2 | 40 |
| | 8 | 3 | 2 | 40 | | 4 | 0 | 0 | | 4 | 9 | 60 |
| | 9 | 3 | 7 | 20 | | 4 | 6 | 0 | | 5 | 4 | 80 |
| | 10 | 4 | 0 | 0 | | 05 | 0 | 0 | | 6 | 0 | 0 |
| Pounds. | 20 | 8 | 0 | 0 | | 10 | 0 | 0 | | 12 | 0 | 0 |
| | 30 | 12 | 0 | 0 | | 15 | 0 | 0 | | 18 | 0 | 0 |
| | 40 | 16 | 0 | 0 | 1 | 00 | 0 | 0 | 1 | 04 | 0 | 0 |
| | 50 | 1 00 | 0 | 0 | 1 | 05 | 0 | 0 | 1 | 10 | 0 | 0 |
| | 60 | 1 4 | 0 | 0 | 1 | 10 | 0 | 0 | 1 | 16 | 0 | 0 |
| | 70 | 1 8 | 0 | 0 | 1 | 15 | 0 | 0 | 2 | 2 | 0 | 0 |
| | 80 | 1 12 | 0 | 0 | 2 | 00 | 0 | 0 | 2 | 8 | 0 | 0 |
| | 90 | 1 16 | 0 | 0 | 2 | 05 | 0 | 0 | 2 | 14 | 0 | 0 |
| | 100 | 2 | 0 | 0 | 2 | 10 | 0 | 0 | 3 | 0 | 0 | 0 |
| | 200 | 4 | 0 | 0 | 5 | 00 | 0 | 0 | 6 | 0 | 0 | 0 |
| Pounds. | 300 | 6 | 0 | 0 | 7 | 10 | 0 | 0 | 9 | 0 | 0 | 0 |
| | 400 | 8 | 0 | 0 | 10 | 00 | 0 | 0 | 12 | 0 | 0 | 0 |
| | 500 | 10 | 0 | 0 | 12 | 10 | 0 | 0 | 15 | 0 | 0 | 0 |
| | 600 | 12 | 0 | 0 | 15 | 00 | 0 | 0 | 18 | 0 | 0 | 0 |
| | 700 | 14 | 0 | 0 | 17 | 10 | 0 | 0 | 21 | 0 | 0 | 0 |
| | 800 | 16 | 0 | 0 | 20 | 00 | 0 | 0 | 24 | 0 | 0 | 0 |
| | 900 | 18 | 0 | 0 | 22 | 10 | 0 | 0 | 27 | 0 | 0 | 0 |
| | 1000 | 20 | 0 | 0 | 25 | 00 | 0 | 0 | 30 | 0 | 0 | 0 |

| | | 7 Moneths | | | | 8 Moneths | | | | 9 Moneths | | | |
|---------|------|-----------|-----|----|----|-----------|-----|----|----|-----------|-----|----|----|
| | | li. | sh. | d. | c. | li. | sh. | d. | c. | li. | sh. | d. | c. |
| Shill. | 5 | | | 2 | 10 | | | 2 | 40 | | | 2 | 70 |
| | 10 | | | 4 | 20 | | | 4 | 80 | | | 5 | 40 |
| | 15 | | | 6 | 30 | | | 7 | 20 | | | 8 | 10 |
| Pounds. | 1 | | | 8 | 4 | | | 9 | 60 | | | 10 | 80 |
| | 2 | | 1 | 4 | 8 | | 1 | 7 | 20 | | 1 | 9 | 60 |
| | 3 | | 2 | 1 | 20 | | 2 | 4 | 80 | | 2 | 8 | 40 |
| | 4 | | 2 | 9 | 60 | | 3 | 2 | 40 | | 3 | 7 | 20 |
| | 5 | | 3 | 6 | 00 | | 4 | 0 | 00 | | 4 | 6 | 00 |
| | 6 | | 4 | 2 | 40 | | 4 | 9 | 60 | | 5 | 4 | 80 |
| | 7 | | 4 | 10 | 80 | | 5 | 7 | 20 | | 6 | 3 | 60 |
| | 8 | | 5 | 7 | 20 | | 6 | 4 | 80 | | 7 | 2 | 40 |
| | 9 | | 6 | 3 | 60 | | 7 | 2 | 40 | | 8 | 1 | 20 |
| Pounds. | 10 | | 7 | 0 | 0 | | 8 | 0 | 0 | | 9 | 0 | 0 |
| | 20 | | 14 | 0 | 0 | | 16 | 0 | 0 | | 18 | 0 | 0 |
| | 30 | 1 | 0 | 1 | 0 | 1 | 0 | 4 | 0 | 1 | 0 | 7 | 0 |
| | 40 | 1 | 0 | 8 | 0 | 1 | 12 | 0 | 0 | 1 | 16 | 0 | 0 |
| | 50 | 1 | 1 | 5 | 0 | 2 | 00 | 0 | 0 | 2 | 05 | 0 | 0 |
| | 60 | 2 | 0 | 2 | 0 | 2 | 08 | 0 | 0 | 2 | 14 | 0 | 0 |
| | 70 | 2 | 0 | 9 | 0 | 2 | 16 | 0 | 0 | 3 | 03 | 0 | 0 |
| | 80 | 2 | 1 | 6 | 0 | 3 | 04 | 0 | 0 | 3 | 12 | 0 | 0 |
| | 90 | 3 | 0 | 3 | 0 | 3 | 12 | 0 | 0 | 4 | 01 | 0 | 0 |
| | 100 | 3 | 10 | 0 | 0 | 4 | 00 | 0 | 0 | 4 | 10 | 0 | 0 |
| | 200 | 7 | 00 | 0 | 0 | 8 | 00 | 0 | 0 | 9 | 00 | 0 | 0 |
| | 300 | 10 | 10 | 0 | 0 | 12 | 00 | 0 | 0 | 13 | 10 | 0 | 0 |
| | 400 | 14 | 00 | 0 | 0 | 16 | 00 | 0 | 0 | 18 | 00 | 0 | 0 |
| | 500 | 17 | 10 | 0 | 0 | 20 | 00 | 0 | 0 | 22 | 10 | 0 | 0 |
| | 600 | 21 | 00 | 0 | 0 | 24 | 00 | 0 | 0 | 27 | 00 | 0 | 0 |
| | 700 | 24 | 10 | 0 | 0 | 28 | 00 | 0 | 0 | 31 | 10 | 0 | 0 |
| | 800 | 28 | 00 | 0 | 0 | 32 | 00 | 0 | 0 | 36 | 00 | 0 | 0 |
| | 900 | 31 | 10 | 0 | 0 | 36 | 00 | 0 | 0 | 40 | 10 | 0 | 0 |
| | 1000 | 35 | 00 | 0 | 0 | 40 | 00 | 0 | 0 | 45 | 00 | 0 | 0 |

| | 10 Moneths | | | | 11 Moneths | | | | 12 Moneths | | | |
|---------------|------------|-----|----|----|------------|-----|----|----|------------|-----|----|----|
| | li. | sh. | d. | c. | li. | sh. | d. | c. | li. | sh. | d. | c. |
| <i>Shill.</i> | 5 | | 3 | 0 | | | 3 | 30 | | | 3 | 60 |
| 10 | | | 6 | 0 | | | 6 | 60 | | | 7 | 20 |
| 15 | | | 9 | 0 | | | 9 | 90 | | | 10 | 80 |
| 1 | 1 | 0 | 0 | 0 | 1 | 1 | 20 | | 1 | 2 | 40 | |
| 2 | 2 | 0 | 0 | 0 | 2 | 2 | 40 | | 2 | 4 | 80 | |
| 3 | 3 | 0 | 0 | 0 | 3 | 3 | 60 | | 3 | 7 | 20 | |
| 4 | 4 | 0 | 0 | 0 | 4 | 4 | 80 | | 4 | 9 | 60 | |
| 5 | 5 | 0 | 0 | 0 | 5 | 6 | 00 | | 6 | 0 | 00 | |
| 6 | 6 | 0 | 0 | 0 | 6 | 7 | 20 | | 7 | 2 | 40 | |
| 7 | 7 | 0 | 0 | 0 | 7 | 8 | 40 | | 8 | 4 | 80 | |
| 8 | 8 | 0 | 0 | 0 | 8 | 9 | 60 | | 9 | 7 | 20 | |
| 9 | 9 | 0 | 0 | 0 | 9 | 10 | 80 | | 10 | 9 | 60 | |
| 10 | 10 | 0 | 0 | 0 | 11 | 0 | 0 | 0 | 12 | 0 | 0 | 0 |
| 20 | 1 | 00 | 0 | 0 | 1 | 02 | 0 | 0 | 1 | 04 | 0 | 0 |
| 30 | 1 | 10 | 0 | 0 | 1 | 13 | 0 | 0 | 1 | 16 | 0 | 0 |
| 40 | 2 | 00 | 0 | 0 | 2 | 04 | 0 | 0 | 2 | 08 | 0 | 0 |
| 50 | 2 | 10 | 0 | 0 | 2 | 15 | 0 | 0 | 3 | 00 | 0 | 0 |
| 60 | 3 | 00 | 0 | 0 | 3 | 06 | 0 | 0 | 3 | 12 | 0 | 0 |
| 70 | 3 | 10 | 0 | 0 | 3 | 17 | 0 | 0 | 4 | 04 | 0 | 0 |
| 80 | 4 | 00 | 0 | 0 | 4 | 08 | 0 | 0 | 4 | 16 | 0 | 0 |
| 90 | 4 | 10 | 0 | 0 | 4 | 19 | 0 | 0 | 5 | 08 | 0 | 0 |
| 100 | 5 | 0 | 0 | 0 | 5 | 10 | 0 | 0 | 6 | 0 | 0 | 0 |
| 200 | 10 | 0 | 0 | 0 | 11 | 00 | 0 | 0 | 12 | 0 | 0 | 0 |
| 300 | 15 | 0 | 0 | 0 | 16 | 10 | 0 | 0 | 18 | 0 | 0 | 0 |
| 400 | 20 | 0 | 0 | 0 | 22 | 00 | 0 | 0 | 24 | 0 | 0 | 0 |
| 500 | 25 | 0 | 0 | 0 | 27 | 10 | 0 | 0 | 30 | 0 | 0 | 0 |
| 600 | 30 | 0 | 0 | 0 | 33 | 00 | 0 | 0 | 36 | 0 | 0 | 0 |
| 700 | 35 | 0 | 0 | 0 | 38 | 10 | 0 | 0 | 42 | 0 | 0 | 0 |
| 800 | 40 | 0 | 0 | 0 | 44 | 00 | 0 | 0 | 48 | 0 | 0 | 0 |
| 900 | 45 | 0 | 0 | 0 | 49 | 10 | 0 | 0 | 54 | 0 | 0 | 0 |
| 1000 | 50 | 0 | 0 | 0 | 55 | 00 | 0 | 0 | 60 | 0 | 0 | 0 |



The use of these Tables.

Now to finde the Interest of any sum of money for any time, by this table: first, look the summe of money on the side of the Table; then finde the time required at the head of the Table; and in the square meeting of these two, you shall finde the Interest thereof. Onely note, if you cannot finde your summe of money, or the time all at once; you must take it at two or three times; and so adde them together.

Thus the Interest of 146 pounds for six moneths will be found thus.

| | li. | sh. | d. | c. |
|-----------------------------|-----|-----|----|----|
| 100 pounds for 6 moneths is | 3 | 0 | 0 | 0 |
| 40 pounds for 9 moneths is | 1 | 4 | 0 | 0 |
| 6 pounds for 6 moneths is | 0 | 3 | 7 | 10 |

In all 4 7 7 10

Which is 4 pounds, 7 shillings, 7 pence, and 20 hundred parts of a penny, that is, almost a farthing, as I noted before.

And thus you may do for any other summe of money, and for the more exactnesse, I have set down the Interest-money, not onely in moneths, but in single dayes to a moneth. Now a moneth in these Tables is supposed to be just the twelf part of a year, but yet it is ordinarily reckoned by the usuall moneths of the year, *January, February, March, &c.*

But this way of reckoning by Moneths is not altogether so exact as it might be wished; for some Moneths have but 30 dayes, and others 31, and *February* hath

hath commonly but 28. And therefore it may be worth the while (especially in great sums) to look more curiously into the time, and count it by dayes: for otherwise there may be wrong done either to the lender or borrower unawares.

For instance, suppose a bond made the 10th. of *February* for six moneths, or half a year, the ordinary time. If you reckon by moneths, it will be due the 10th. of *August*: but since there are 365 dayes in a year, the half thereof is 182 dayes and an half, but you cannot reckon lesse then 183 dayes; and if you account these 183 dayes from the 10th. of *February*, they will reach to the 12th. of *August*. So that by reckoning the time by the moneths, the borrower will pay the money two dayes too soon. Now if the sum of money be but 1000 pound, the Interest for those two dayes will be 6 shillings, 7 pence (very neer) and so much wrong the borrower receives, and the Statute (perhaps) is broken hereby.

To

To remedy this; I have observed, that Scriveners usually make such Bonds, to be paid alwayes two dayes after the day whereon the Bond is dated.

But herein also they may do as much or more wrong on the other side, though with lesse danger of breaking the Statute. For, suppose a Bond be made upon the 10th. of *August*, they (according to this rule) make it to be paid the 12 of *February*; whereas accounting 183 dayes (as they ought to do) for the half year, the Bond will be (*justly*) due upon the 9th. of *February*: and so by this means the Lender loseth three dayes Interest.

Again, if a Bond be made the 10th. of *February* to be paid the 12 of *August*; although in this (by chance) there is no wrong to either party: yet if a new Bond be made this 12 of *August*, to be paid the 14 of *February*, the Lender you see in the whole year loseth four dayes, which is very considerable in great sums of money, or when Bonds are often renewed.

To avoid these inconveniences, I
have

have made this following Table; by which you shall know both the exact time of any part of a year in dayes; and also the Interest which is due for any time or number of dayes. Onely herein I must intreat you to walk a step further into the Art of *Arithmetick*; and instead of *Addition* to use *Multiplication*.

Tables

Tables of Interest at 6 per Centum.

| | D. | Januar. | D. | Februa. | D. | March |
|----|----|---------|----|---------|----|---------|
| 1 | 1 | 001.643 | 32 | 052.606 | 60 | 098.630 |
| 2 | 2 | 003.287 | 33 | 054.246 | 61 | 100.273 |
| 3 | 3 | 004.931 | 34 | 055.890 | 62 | 101.917 |
| 4 | 4 | 006.575 | 35 | 057.534 | 63 | 103.561 |
| 5 | 5 | 008.219 | 36 | 059.178 | 64 | 105.205 |
| 6 | 6 | 009.863 | 37 | 060.821 | 65 | 106.849 |
| 7 | 7 | 011.506 | 38 | 062.465 | 66 | 108.493 |
| 8 | 8 | 013.150 | 39 | 064.109 | 67 | 110.136 |
| 9 | 9 | 014.794 | 40 | 065.753 | 68 | 111.780 |
| 10 | 10 | 016.438 | 41 | 067.397 | 69 | 113.424 |
| 11 | 11 | 018.082 | 42 | 069.041 | 70 | 115.068 |
| 12 | 12 | 019.726 | 43 | 070.684 | 71 | 116.712 |
| 13 | 13 | 021.369 | 44 | 072.328 | 72 | 118.356 |
| 14 | 14 | 023.013 | 45 | 073.972 | 73 | 120.000 |
| 15 | 15 | 024.657 | 46 | 075.616 | 74 | 121.643 |
| 16 | 16 | 026.301 | 47 | 077.260 | 75 | 123.287 |
| 17 | 17 | 027.945 | 48 | 078.904 | 76 | 124.931 |
| 18 | 18 | 029.589 | 49 | 080.547 | 77 | 126.575 |
| 19 | 19 | 031.232 | 50 | 082.191 | 78 | 128.219 |
| 20 | 20 | 032.876 | 51 | 083.835 | 79 | 129.863 |
| 21 | 21 | 034.520 | 52 | 085.479 | 80 | 131.506 |
| 22 | 22 | 036.164 | 53 | 087.123 | 81 | 133.150 |
| 23 | 23 | 037.808 | 54 | 088.767 | 82 | 134.794 |
| 24 | 24 | 039.452 | 55 | 090.410 | 83 | 136.438 |
| 25 | 25 | 041.095 | 56 | 092.054 | 84 | 138.082 |
| 26 | 26 | 042.739 | 57 | 093.698 | 85 | 139.726 |
| 27 | 27 | 044.383 | 58 | 095.342 | 86 | 141.369 |
| 28 | 28 | 046.027 | 59 | 096.986 | 87 | 143.013 |
| 29 | 29 | 047.671 | | | 88 | 144.657 |
| 30 | 30 | 049.315 | | | 89 | 146.301 |
| 31 | 31 | 050.958 | | | 90 | 147.945 |

Tables of Interest at 6 per Centum.

| | D. | April | D. | May | D. | June |
|----|-----|---------|-----|---------|-----|---------|
| 1 | 91 | 149.589 | 121 | 198.904 | 152 | 249.863 |
| 2 | 92 | 151.232 | 122 | 200.547 | 153 | 251.506 |
| 3 | 93 | 152.876 | 123 | 202.191 | 154 | 253.150 |
| 4 | 94 | 154.520 | 124 | 203.835 | 155 | 254.794 |
| 5 | 95 | 156.164 | 125 | 205.479 | 156 | 256.438 |
| 6 | 96 | 157.808 | 126 | 207.123 | 157 | 258.082 |
| 7 | 97 | 159.452 | 127 | 208.767 | 158 | 259.726 |
| 8 | 98 | 161.095 | 128 | 210.410 | 159 | 261.369 |
| 9 | 99 | 162.739 | 129 | 212.054 | 160 | 263.013 |
| 10 | 100 | 164.383 | 130 | 213.698 | 161 | 264.657 |
| 11 | 101 | 166.027 | 131 | 215.342 | 162 | 266.301 |
| 12 | 102 | 167.671 | 132 | 216.986 | 163 | 267.945 |
| 13 | 103 | 169.315 | 133 | 218.630 | 164 | 269.589 |
| 14 | 104 | 170.958 | 134 | 220.273 | 165 | 271.232 |
| 15 | 105 | 172.602 | 135 | 221.917 | 166 | 272.876 |
| 16 | 106 | 174.246 | 136 | 223.561 | 167 | 274.520 |
| 17 | 107 | 175.890 | 137 | 225.205 | 168 | 276.164 |
| 18 | 108 | 177.534 | 138 | 226.849 | 169 | 277.808 |
| 19 | 109 | 179.178 | 139 | 228.493 | 170 | 279.452 |
| 20 | 110 | 180.821 | 140 | 230.136 | 171 | 281.095 |
| 21 | 111 | 182.465 | 141 | 231.780 | 172 | 282.739 |
| 22 | 112 | 184.109 | 142 | 233.424 | 173 | 284.383 |
| 23 | 113 | 185.753 | 143 | 235.068 | 174 | 286.027 |
| 24 | 114 | 187.397 | 144 | 236.712 | 175 | 287.671 |
| 25 | 115 | 189.041 | 145 | 238.356 | 176 | 289.315 |
| 26 | 116 | 190.684 | 146 | 240.000 | 177 | 290.958 |
| 27 | 117 | 192.328 | 147 | 241.643 | 178 | 292.602 |
| 28 | 118 | 193.972 | 148 | 243.287 | 179 | 294.246 |
| 29 | 119 | 195.616 | 149 | 244.931 | 180 | 295.890 |
| 30 | 120 | 197.260 | 150 | 246.575 | 181 | 297.534 |
| 31 | | | 151 | 248.219 | | |

Tables of Interest at 6 per Centum.

| | D. | July | D. | August | D. | Septem |
|----|-----|---------|-----|---------|-----|---------|
| 1 | 182 | 299.178 | 213 | 350.136 | 244 | 401.095 |
| 2 | 183 | 300.821 | 214 | 351.780 | 245 | 402.739 |
| 3 | 184 | 302.465 | 215 | 353.424 | 246 | 404.383 |
| 4 | 185 | 304.109 | 216 | 355.068 | 247 | 406.027 |
| 5 | 186 | 305.753 | 217 | 356.712 | 248 | 407.671 |
| 6 | 187 | 307.397 | 218 | 358.356 | 249 | 409.315 |
| 7 | 188 | 309.041 | 219 | 360.000 | 250 | 410.958 |
| 8 | 189 | 310.684 | 220 | 361.643 | 251 | 412.602 |
| 9 | 190 | 312.328 | 221 | 363.287 | 252 | 414.246 |
| 10 | 191 | 313.972 | 222 | 364.931 | 253 | 415.890 |
| 11 | 192 | 315.616 | 223 | 366.575 | 254 | 417.534 |
| 12 | 193 | 317.260 | 224 | 368.219 | 255 | 419.178 |
| 13 | 194 | 318.904 | 225 | 369.863 | 256 | 420.821 |
| 14 | 195 | 320.547 | 226 | 371.506 | 257 | 422.465 |
| 15 | 196 | 322.191 | 227 | 373.150 | 258 | 424.109 |
| 16 | 197 | 323.835 | 228 | 374.794 | 259 | 425.753 |
| 17 | 198 | 325.479 | 229 | 376.438 | 260 | 427.397 |
| 18 | 199 | 327.123 | 230 | 378.082 | 261 | 429.041 |
| 19 | 200 | 328.767 | 231 | 379.726 | 262 | 430.684 |
| 20 | 201 | 330.410 | 232 | 381.369 | 263 | 432.328 |
| 21 | 202 | 332.054 | 233 | 383.013 | 264 | 433.972 |
| 22 | 203 | 333.698 | 234 | 384.657 | 265 | 435.616 |
| 23 | 204 | 335.342 | 235 | 386.301 | 266 | 437.260 |
| 24 | 205 | 336.986 | 236 | 387.945 | 267 | 438.904 |
| 25 | 206 | 338.630 | 237 | 389.589 | 268 | 440.547 |
| 26 | 207 | 340.273 | 238 | 391.232 | 269 | 442.191 |
| 27 | 208 | 341.917 | 239 | 392.876 | 270 | 443.835 |
| 28 | 209 | 343.561 | 240 | 394.520 | 271 | 445.479 |
| 29 | 210 | 345.205 | 241 | 396.164 | 272 | 447.123 |
| 30 | 211 | 346.849 | 242 | 397.808 | 273 | 448.767 |
| 31 | 212 | 348.493 | 243 | 399.452 | | |

Tables of Interest at 6 per Centum.

| | D. October | D. Novem | D. Decem. |
|----|-------------|-------------|-------------|
| 1 | 274 450.410 | 305 501.369 | 335 550.684 |
| 2 | 275 451.054 | 306 502.013 | 336 552.328 |
| 3 | 276 453.698 | 307 504.657 | 337 553.972 |
| 4 | 277 455.342 | 308 506.301 | 338 555.616 |
| 5 | 278 456.986 | 309 507.945 | 339 557.260 |
| 6 | 279 458.630 | 310 509.589 | 340 558.904 |
| 7 | 280 460.273 | 311 511.231 | 341 560.547 |
| 8 | 281 461.917 | 312 512.876 | 342 562.191 |
| 9 | 282 463.561 | 313 514.520 | 343 563.835 |
| 10 | 283 462.205 | 314 516.164 | 344 565.479 |
| 11 | 284 466.849 | 315 517.808 | 345 567.123 |
| 12 | 285 468.493 | 316 519.452 | 346 568.767 |
| 13 | 286 470.136 | 317 521.095 | 347 570.410 |
| 14 | 287 471.780 | 318 522.739 | 348 572.054 |
| 15 | 288 473.424 | 319 524.383 | 349 573.698 |
| 16 | 289 475.068 | 320 526.027 | 350 575.342 |
| 17 | 290 476.712 | 321 527.671 | 351 576.986 |
| 18 | 291 478.356 | 322 529.315 | 352 578.630 |
| 19 | 292 480.000 | 323 530.958 | 353 580.273 |
| 20 | 293 481.643 | 324 532.602 | 354 581.917 |
| 21 | 294 483.287 | 325 534.246 | 355 583.561 |
| 22 | 295 484.931 | 326 535.890 | 356 585.205 |
| 23 | 296 486.575 | 327 537.534 | 357 586.849 |
| 24 | 297 488.219 | 328 539.178 | 358 588.493 |
| 25 | 298 489.863 | 329 540.821 | 359 590.136 |
| 26 | 299 491.506 | 330 542.465 | 360 591.780 |
| 27 | 300 493.150 | 331 544.109 | 361 593.424 |
| 28 | 301 494.794 | 332 545.753 | 362 595.068 |
| 29 | 302 496.438 | 333 547.397 | 363 596.712 |
| 30 | 303 498.082 | 334 549.041 | 364 598.356 |
| 31 | 304 499.726 | | 365 600.000 |



The Use of these Tables.

THe Tables are so plaine, that I suppose they need no demonstration, being made in the form of a plain Almanack. Onely I shall shew the use thereof in two or three examples.

I.

If a bond be dated the 10th. of February, when is the half year, or 183 days out?

First, in these tables you shall find against the 10th. of February, the number 41, which shews, it is the one and fortieth day from the beginning of the year; and then if you add 183 dayes being the half year to this 41, it makes 224 dayes. Then look forward till you finde this number, which you shall finde in this table against.

against the 12 th. of August; and this is the day when the half year is finished.

II.

How many days is it from the 10 th of August. to the last of December?

In this you must substract the later time out of the, former time. Thus, against the last of December, you shall finde 365 days, and against the 10 th. of August 122 days, wh;ch substracted out of the other, there remaines 143, and so many are the dayes required.

But because many times it will be needfull to know the days which fall out in severall years, and so the number. out of which you should substract, will be lesler then the number which you should substract out of it: in thit case you may first finde the days to that years end, and then add the lesler number which fall out in the year following thereunto.

III.

*Thus, if you would know how many
dayes it is from the tenth of August
to the ninth of February.*

F First from the tenth of August to the
years end, as before was found to be 143
dayes; and to this if you adde the dayes
found against the ninth of February
which are 40, it will make 183 dayes,
or halfe a year, and not the 12 of Fe-
bruary, as I noted before.

The like you may do for any other
number of dayes, or any other time of
a year, only take notice that the year
consisting of 365 dayes, the parts there-
of exactly are thus :

*One moneth, or a twelfth part of a year,
is 30 dayes, 10 hours.*

*Three moneths, or one quarter, 91 dayes,
6 hours.*

Six

Six moneths, or an half, 182 dayes, 12 hours.

Nine moneths, or three quarters, 273 dayes, 18 hours.

But to keep without danger of the Statute, and to allow some favour to the borrower; if you reckon the parts of the Interest-money by the time, then reckon thus,

For one moneth, or the twelfth part of a year, 31 dayes.

For three moneths, or one quarter, 92 dayes.

For six moneths, or an halfe, 183 dayes.

For nine moneths, or three quarters, 274 dayes.

For though six pound be due for an hundred pound at the years end, yet three pound is not due for 182. dayes, and in this there is no need to reckon half dayes; and therefore you must take 183 dayes for the half year.

IV.

To know what is the true use of any summe of money for any number of dayes, after the rate of six per Centum.

Having found out the true number of dayes, as is before shewed; finde out this number of dayes in the Table, and there you shall finde in a decimall Fraction the true Interest of one pound for the said time: So that the proportion will be thus,

*As 1li. or 1.0000,000,
To the number in the Tables;
So any number of pounds inquired,
To the like number required.*

Take this number therefore, and multiply it by your principall summe, and then cutting off the seven last figures toward your right hand, the remainer will

will shew you the pounds which it comes to, and the figures cut off, they are a fraction of a pound. But now in the valuation whereof, you need make use but of the first four figures, reckoning the first figure doubled, and it will shew the shillings; if the second figure be more then five, take five out of it and reckon one shilling more for it; lastly, the remainder of that above five, and the next following figure, will shew the farthings very neer, if you abate but one in 25. Or you may find the true value of these first four figures in the decimall table page 33.

For example.

What is the Interest of 555 pounds, for about half a year, or 183 dayes?

The

(120)

The number against 182 dayes is

This multiplied by 555

.0299.178
| 555

11495890
3|495890
14|95890

Yields 16|6043,790

Which, according to the former rules and Tables, comes to 16 pound 12 shillings 1 peny, and a little more, viz. scarce two tenth parts of a farthing.

And thus you may do for any other number of even pounds: and if you think this too much labour, then if your principall money be not very much, you need take out but the first 4 figures of the Tables to be multiplied (which are therefore separated from the rest by the [.]) and then you must cut off but 4 figures from the product, and those will exactly agree with the decimall Table.

Thus,

Thus, the 4 first figures of the former
number

Multiplied by

50299

555

| | |
|----|------|
| 1 | 1495 |
| 14 | 95 |

Yields

16/5945

Which is 16 li. 12 shil. very neer.

But if you will be more exact and know also the interest of shillings and pence, if there be any shillings and pence belonging to your principall summe; you must first reduce them into one decimall fraction, by the Table, and then take the 4 first figures of this number in the Table, and multiply them together. And observe how many figures you multiply by, and cut off so many figures from the end of the product, the rest of the figures; if they be three, put one cipher before them; if they be two, put two cyphers before them, to make them agree to the 4 places in the Table and seeke that sum in the decimall Table, which will shew the true value thereof. Note, that it can-

G

not

Not exceed 6600, which is 1 shilling 2 pence 40 hundred parts.

Thus for example, if your principall summe were 555 pound, 11 shillings, the Interest of the 11 shillings must thus be found ;

| | |
|--|----------|
| <i>The Interest for 182 dayes is</i> | 50199 |
| <i>11 shil. reduced into decimals is</i> | 55 |
| | <hr/> |
| | 1495 |
| | 1495 |
| | <hr/> |
| | 50164/45 |

By cutting off the two last figures, and adding one cypher to the beginning to make the three figures to four places, the sum is 0164, which in the decimal Table shewes 4 pence very neer.

Or yet more exactly, if you adde this to your former product of the 555 li.

li.

16,6043790

,016445

16,6208240

So the whole Interest appears to be
16 pound, 12 shillings, 5 pence.

But, me thinks, I hear some taxing of
me for being so scrupelous in account-
ing the Interest of money by dayes, and
not rather teach some way, how a just
abatement should be made for those
payments which are made before the
year is fully out. For the Act allowes
to take 6 pound in the hundred for the
whole yeare; now if a man takes 3 pound
per Centum for the half year; the said
3 pound in the other half year will
yield, at the same rate, 1 shilling, 9
pence, 2 farthings; and thus, some
think, a man takes more then the Act
allowes, and comes within the danger
thereof.

But the Law herein looks upon the
G 2 year,

year as the fittest measure of time to proportion the Interest by ; and the intent of the law is to restrain the grosser abuses of Extortioners, and not to take notice of such niceties as this ; which would have made it either very large and tedious, by appointing exact Tables for it, moneth by moneth, nay day by day ; or else intricate, and full of snares for men to fall into. The plain meaning of the law is this ; that, as a year should measure the time, so the said 6 pound should proportion the Interest ; the parts of the one answering to the parts of the other ; neither allowing any Interest upon the Interest, for the time under or over a year, nor tying any man to let or take up money for the whole year.

And the usuall custome therefore in this case is a good Comment upon this Law ; by which most Bonds of this nature are made to be paid at six moneths end, and yet the full half of the whole years Interest allowed ; which would never have been so long and frequently done, if it had been
thought

thought any breach of the Statute.

And therefore, though there might be an allowance made by way of rebatement, and the cause may seem somewhat like, yet it is not the same; neither doth the strictest rebatement used among Merchants, take any notice thereof, but is grounded upon another cause, as you may see more in the next particulars.

* *

*

O F



O F

Rebatement.

MErchants, though they seldom let out money to use, yer they often take up much; and that not onely the common way by Bond, which I spake of before, but by way of rebatement; which is thus.

A Merchant being to sell any commodity, he either sells it for ready money, or to be paid at a certain time, *viz.* 3, 6, or 12 Moneths after. But the bargain being thus made, it often falls out, that with good convenience, to the buyer, or seller, or both, to have this money paid before it be due; and then there is and ought to be an allowance or rebatement between them out of the principall,

principall, according to the rate of Interest-money allowed at that time.

Now this rebatement hath been usually reckoned by the Tables ordinary Interest, abating so much out of the principall debt, as the use of the said principall would come to in the time agreed upon. But in reckoning thus, there will alwayes be some damage to the Creditour who doth abate, which though in little summes, will not be much, yet in greater summes of money, such as this rebatement is most used in, it will be very considerable, and is of late used by the most skilfull Merchants.

For example.

The Interest of an hundred pound for six moneths comes to 3 pound. But Now suppose *A* oweth to *B* an hundred pound, to be paid six moneths hence: and *A* and *B* are agreed to give and take rebate; here ought not to be 3 pound abated out of the hundred pound. Indeed, if the debt had been

103 pound, then there should have been 3 pound abated out of the debt; but there being but an hundred pound due in all, and that not till the end of six moneths; there must be so much a lesse proportion for the abatement, as there is a difference between 103 and 100; which may be thus found by the rule of proportion,

| | | | |
|------------|------------|------------|-------------|
| <i>li.</i> | <i>li.</i> | <i>li.</i> | <i>li.</i> |
| As 103, | to 100; | so 100, | to 97.0874. |

Which is 97 pound, 1 shilling, 9 pence. So that there is onely 2 pound, 18 shillings, 3 pence to be abated, and not 3 pound, as by the other reckoning.

Therefore if you would finde out the worth of any debt, due hereafter in ready money; First, finde out by the Tables of Interest, what an hundred pound will yield in the time desired: then work by the rule of proportion thus,

As

*As an 100 pound, with the Interest
thereof for that time,
Is to an 100 pounds;
So the debt to be paid at that time,
To its worth in ready money.*

Thus, to finde the worth of an hundred pound, due 12 moneths hence.

As 106, to 100; so 100, to 94.3396.

Which is 94 pound, 6 shillings, 9 pence, 2 farthings. So that here is not six pounds to be abated out of the 100 pound, (as some have thought) but 5 pound, 13 shillings, 2 pence, 2 farthings. And thus the creditor may save 6 shillings, 9 pence, 2 farthings, which by the other way of reconing he will rebate in his own wrong. And if the sum be greater, or the time of payment longer, his damage will be more.

Again, you see that this money to be rebated doth not increase equally, in an equall time; there was 2 pound, 18 shillings, 3 pence, to be abated out of the

100 pound, due at 6 Moneths, but there is
 but 5 pound, 13 shillings, 2 pence, 2 far-
 things to be abated for the 100 pounds
 due at 12 Moneths ; which is not the
 double of the other, for so it should have
 been, 5 pound, 16 shillings, 6 pence. So
 that these Tables must be cast up for every
 Moneth at the least, which is the most
 usuall way of reckoning the times of
 payments among Merchants, and
 thus I have drawn them out to
 24 Moneths, which is as
 long (I think) as any
 Merrchant de-
 sires to trust.

* *

*



re is
far-
nds
the
have
. So
very
most
of
ad

TABLES

O F

REBATEMENT,

At Six *per Centum*.

Rebate at 6 per Centum.

| | 1 Moneth | | | | 2 Moneths | | | | 3 Moneths | | | |
|--------|----------|-----|----|-------|-----------|-----|----|-------|-----------|-----|----|-------|
| | li. | sh. | d. | c. | li. | sh. | d. | c. | li. | sh. | d. | c. |
| Shill. | 5 | | | 30 | | | | 1 59 | | | | 89 |
| | 10 | | | 60 | | | | 1 19 | | | | 1 77 |
| | 15 | | | 90 | | | | 1 78 | | | | 2 66 |
| Pounds | 1 | | | 1 19 | | | | 2 37 | | | | 3 54 |
| | 2 | | | 2 39 | | | | 4 75 | | | | 7 09 |
| | 3 | | | 3 58 | | | | 7 12 | | | | 10 64 |
| | 4 | | | 4 78 | | | | 9 50 | 1 | 2 | | 18 |
| | 5 | | | 5 97 | | | | 11 87 | 1 | 5 | | 73 |
| | 6 | | | 7 17 | 1 | 2 | | 25 | 1 | 9 | | 29 |
| | 7 | | | 8 36 | 1 | 4 | | 62 | 2 | 1 | | 83 |
| | 8 | | | 9 56 | 1 | 7 | | 00 | 2 | 4 | | 37 |
| | 9 | | | 10 75 | 1 | 9 | | 37 | 2 | 7 | | 92 |
| Pounds | 10 | | | 11 94 | 1 | 11 | | 76 | 2 | 11 | | 47 |
| | 20 | 1 | 11 | 88 | 3 | 11 | | 52 | 5 | 10 | | 93 |
| | 30 | 2 | 11 | 82 | 5 | 11 | | 29 | 8 | 10 | | 40 |
| | 40 | 3 | 11 | 76 | 7 | 11 | | 05 | 11 | 9 | | 87 |
| | 50 | 4 | 11 | 70 | 9 | 10 | | 81 | 14 | 9 | | 34 |
| | 60 | 5 | 11 | 64 | 11 | 10 | | 58 | 17 | 8 | | 80 |
| | 70 | 6 | 11 | 59 | 13 | 10 | | 34 | 1 | 0 | | 8 27 |
| | 80 | 7 | 11 | 53 | 15 | 10 | | 10 | 1 | 3 | | 7 74 |
| | 90 | 8 | 11 | 47 | 17 | 9 | | 86 | 1 | 6 | | 7 21 |
| 100 | 9 | 11 | | 40 | 19 | 9 | | 62 | 1 | 9 | | 6 68 |
| 200 | 19 | 10 | | 80 | 1 | 19 | | 7 24 | 2 | 19 | | 1 36 |
| 300 | 1 | 9 | 10 | 20 | 2 | 19 | | 4 87 | 4 | 8 | | 8 04 |
| 400 | 1 | 19 | 9 | 61 | 3 | 19 | | 2 49 | 5 | 18 | | 2 72 |
| 500 | 2 | 9 | 9 | 01 | 4 | 19 | | 0 12 | 7 | 7 | | 9 40 |
| 600 | 2 | 19 | 8 | 41 | 5 | 18 | | 9 74 | 8 | 17 | | 4 08 |
| 700 | 3 | 9 | 7 | 82 | 6 | 18 | | 7 37 | 10 | 6 | 10 | 76 |
| 800 | 3 | 19 | 7 | 22 | 7 | 18 | | 4 99 | 11 | 16 | | 5 44 |
| 900 | 4 | 9 | 6 | 63 | 8 | 18 | | 2 61 | 13 | 6 | | 0 12 |
| 1000 | 4 | 19 | 6 | 03 | 9 | 18 | | 0 23 | 14 | 15 | | 6 79 |

Rebate at 6 per Centum.

| | 4 Moneths | | | | 5 Moneths | | | | 6 Moneths | | | | |
|--------|-----------|-----|----|----|-----------|-----|----|----|-----------|-----|----|----|----|
| | li. | sh. | d. | c. | li. | sh. | d. | c. | li. | sh. | d. | c. | |
| Shill. | 5 | | 1 | 18 | | | 1 | 46 | | | 1 | 75 | |
| | 10 | | 2 | 35 | | | 2 | 93 | | | 3 | 49 | |
| | 15 | | 3 | 53 | | | 4 | 39 | | | 5 | 25 | |
| | 1 | | 4 | 70 | | | 5 | 85 | | | 6 | 99 | |
| | 2 | | 9 | 41 | | | 11 | 71 | 1 | | 1 | 98 | |
| | 3 | 1 | 2 | 12 | 1 | 5 | 56 | | 1 | | 8 | 97 | |
| | 4 | 1 | 6 | 82 | 1 | 11 | 41 | | 2 | | 3 | 96 | |
| | 5 | 1 | 11 | 53 | 2 | 5 | 27 | | 2 | 10 | 95 | | |
| | 6 | 2 | 4 | 24 | 2 | 11 | 12 | | 3 | | 5 | 94 | |
| Pounds | 7 | 2 | 8 | 94 | 3 | 4 | 97 | | 4 | | 0 | 93 | |
| | 8 | 3 | 1 | 65 | 3 | 10 | 83 | | 4 | | 7 | 92 | |
| | 9 | 3 | 6 | 35 | 4 | 4 | 68 | | 5 | | 2 | 91 | |
| | 10 | 3 | 11 | 06 | 4 | 19 | 54 | | 5 | | 9 | 90 | |
| | 20 | 7 | 10 | 12 | 9 | 9 | 07 | | 11 | | 7 | 80 | |
| | 30 | 11 | 9 | 18 | 14 | 7 | 61 | | 17 | | 5 | 70 | |
| | 40 | 15 | 8 | 23 | 19 | 6 | 15 | 1 | 3 | | 3 | 61 | |
| | 50 | 19 | 7 | 29 | 1 | 4 | 4 | 68 | 1 | 9 | | 1 | 51 |
| | 60 | 1 | 3 | 6 | 35 | 1 | 9 | 3 | 22 | 1 | 14 | 11 | 42 |
| | 70 | 1 | 7 | 5 | 41 | 1 | 14 | 11 | 76 | 2 | 0 | 9 | 32 |
| | 80 | 1 | 11 | 4 | 47 | 1 | 19 | 00 | 29 | 2 | 6 | 7 | 22 |
| | 90 | 1 | 15 | 3 | 53 | 2 | 3 | 10 | 83 | 2 | 12 | 5 | 13 |
| | 100 | 1 | 19 | 2 | 59 | 2 | 8 | 9 | 56 | 2 | 18 | 3 | 03 |
| | 200 | 3 | 18 | 5 | 18 | 4 | 17 | 6 | 73 | 5 | 16 | 6 | 06 |
| | 300 | 5 | 17 | 7 | 76 | 7 | 6 | 4 | 10 | 8 | 14 | 9 | 09 |
| | 400 | 7 | 16 | 10 | 35 | 9 | 15 | 1 | 46 | 11 | 13 | 0 | 12 |
| | 500 | 9 | 16 | 0 | 94 | 12 | 3 | 10 | 83 | 14 | 11 | 3 | 14 |
| | 600 | 11 | 15 | 3 | 53 | 14 | 12 | 8 | 19 | 17 | 9 | 6 | 17 |
| | 700 | 13 | 14 | 6 | 12 | 17 | 1 | 5 | 56 | 20 | 7 | 9 | 20 |
| 800 | 15 | 13 | 8 | 70 | 19 | 10 | 2 | 93 | 23 | 6 | 0 | 23 | |
| 900 | 17 | 12 | 11 | 29 | 21 | 19 | 0 | 29 | 26 | 4 | 3 | 26 | |
| 1000 | 19 | 12 | 1 | 88 | 24 | 7 | 9 | 66 | 29 | 2 | 6 | 29 | |

date at 6 per Centum.

| Months | l. c. | 7 Months | | | | 8 Months | | | | 9 Months | | | |
|--------|-------|----------|-----|----|-------|----------|-----|-------|----|----------|-----|-------|----|
| | | li. | sh. | d. | c. | li. | sh. | d. | c. | li. | sh. | d. | c. |
| 1 | 75 | 5 | | 2 | 03 | | | 2 | 31 | | | 2 | 58 |
| 3 | 49 | 10 | | 4 | 06 | | | 4 | 61 | | | 5 | 17 |
| 5 | 25 | 15 | | 6 | 09 | | | 6 | 95 | | | 7 | 75 |
| 6 | 99 | 1 | | 8 | 11 | | | 9 | 23 | 10 | | 33 | |
| 1 | 98 | 2 | 1 | 4 | 23 | 1 | 6 | 46 | | 1 | 8 | 67 | |
| 3 | 97 | 3 | 2 | 0 | 35 | 2 | 3 | 69 | | 2 | 7 | 00 | |
| 3 | 96 | 4 | 2 | 8 | 46 | 3 | 0 | 92 | | 3 | 5 | 34 | |
| 9 | 95 | 5 | 3 | 4 | 58 | 3 | 10 | 15 | | 4 | 3 | 67 | |
| 9 | 94 | 6 | 4 | 0 | 69 | 4 | 7 | 38 | | 5 | 2 | 01 | |
| 9 | 93 | 7 | 4 | 8 | 83 | 5 | 4 | 62 | | 6 | 0 | 34 | |
| 9 | 92 | 8 | 5 | 4 | 95 | 6 | 1 | 85 | | 6 | 10 | 68 | |
| 9 | 91 | 9 | 6 | 1 | 04 | 6 | 11 | 08 | | 7 | 9 | 01 | |
| 9 | 90 | 10 | 6 | 9 | 16 | 7 | 8 | 31 | | 8 | 7 | 35 | |
| 8 | 80 | 20 | 13 | 6 | 32 | 15 | 4 | 61 | | 17 | 2 | 70 | |
| 7 | 70 | 30 | 1 | 0 | 3 48 | 1 | 3 | 0 92 | | 1 | 5 | 10 05 | |
| 6 | 61 | 40 | 1 | 7 | 0 64 | 1 | 10 | 9 23 | | 1 | 14 | 5 40 | |
| 5 | 51 | 50 | 1 | 13 | 9 80 | 1 | 18 | 5 54 | | 2 | 3 | 0 75 | |
| 4 | 42 | 60 | 2 | 0 | 6 96 | 2 | 6 | 1 85 | | 2 | 11 | 8 10 | |
| 3 | 32 | 70 | 2 | 7 | 4 12 | 2 | 13 | 10 15 | | 3 | 0 | 3 45 | |
| 2 | 22 | 80 | 2 | 14 | 1 28 | 3 | 1 | 6 46 | | 3 | 8 | 10 80 | |
| 1 | 13 | 90 | 3 | 0 | 10 44 | 3 | 9 | 2 77 | | 3 | 17 | 6 15 | |
| 0 | 03 | 100 | 3 | 7 | 7 59 | 3 | 16 | 11 18 | | 4 | 6 | 1 49 | |
| 0 | 06 | 200 | 6 | 15 | 3 19 | 7 | 13 | 10 15 | | 8 | 12 | 2 98 | |
| 0 | 09 | 300 | 10 | 2 | 10 78 | 11 | 10 | 9 23 | | 12 | 18 | 4 48 | |
| 1 | 12 | 400 | 13 | 10 | 6 30 | 15 | 7 | 8 31 | | 17 | 4 | 5 97 | |
| 1 | 14 | 500 | 16 | 18 | 1 97 | 19 | 4 | 7 38 | | 21 | 10 | 7 46 | |
| 1 | 17 | 600 | 20 | 5 | 9 57 | 22 | 1 | 6 46 | | 25 | 16 | 8 95 | |
| 2 | 20 | 700 | 23 | 12 | 5 16 | 26 | 18 | 5 54 | | 30 | 3 | 10 48 | |
| 2 | 23 | 800 | 27 | 1 | 0 76 | 30 | 15 | 4 61 | | 34 | 9 | 11 94 | |
| 2 | 26 | 900 | 30 | 8 | 8 35 | 34 | 12 | 3 69 | | 38 | 15 | 1 44 | |
| 3 | 29 | 1000 | 33 | 16 | 3 95 | 38 | 9 | 2 77 | | 43 | 1 | 2 93 | |

Rebate at 6 per Centum.

| | 10 Moneths | | | | 11 Moneths | | | | 12 Moneths | | | |
|----------------|------------|-----|----|------|------------|-----|----|-------|------------|-----|----|-------|
| | li. | sh. | d. | c. | li. | sh. | d. | c. | li. | sh. | d. | c. |
| <i>Shill.</i> | 5 | | | 2 85 | | | | 3 13 | | | | 3 40 |
| 10 | | | | 5 71 | | | | 6 25 | | | | 6 79 |
| 15 | | | | 8 57 | | | | 9 38 | | | | 10 19 |
| <i>Pounds.</i> | 1 | 0 | 11 | 43 | 1 | 0 | 51 | | 1 | 1 | 58 | |
| 2 | | 1 | 10 | 86 | | 2 | 1 | 02 | | 2 | 3 | 17 |
| 3 | | 2 | 10 | 29 | | 3 | 1 | 53 | | 3 | 4 | 75 |
| 4 | | 3 | 9 | 71 | | 4 | 2 | 04 | | 4 | 6 | 34 |
| 5 | | 4 | 9 | 14 | | 5 | 2 | 56 | | 5 | 7 | 92 |
| 6 | | 5 | 8 | 57 | | 6 | 3 | 07 | | 6 | 9 | 51 |
| 7 | | 6 | 8 | 00 | | 7 | 3 | 58 | | 8 | 11 | 09 |
| 8 | | 7 | 7 | 43 | | 8 | 4 | 09 | | 9 | 0 | 68 |
| 9 | | 8 | 6 | 86 | | 9 | 4 | 61 | | 10 | 2 | 26 |
| 10 | | 9 | 6 | 28 | | 10 | 5 | 12 | | 11 | 3 | 85 |
| 20 | | 19 | 0 | 57 | | 1 | 0 | 10 25 | | 1 | 2 | 7 70 |
| 30 | 1 | 8 | 6 | 86 | | 1 | 11 | 3 35 | | 1 | 13 | 11 55 |
| 40 | 1 | 18 | 1 | 14 | | 2 | 1 | 8 47 | | 2 | 5 | 3 40 |
| 50 | 2 | 7 | 7 | 43 | | 2 | 12 | 1 59 | | 2 | 16 | 7 25 |
| 60 | 2 | 17 | 1 | 71 | | 3 | 2 | 6 71 | | 3 | 7 | 11 15 |
| 70 | 3 | 6 | 8 | 00 | | 3 | 12 | 11 83 | | 3 | 19 | 2 95 |
| 80 | 3 | 16 | 2 | 29 | | 4 | 3 | 4 95 | | 4 | 10 | 6 80 |
| 90 | 4 | 5 | 8 | 57 | | 4 | 13 | 10 07 | | 5 | 1 | 10 65 |
| 100 | 4 | 15 | 2 | 86 | | 5 | 4 | 3 18 | | 5 | 13 | 2 49 |
| 200 | 9 | 10 | 5 | 71 | | 10 | 8 | 6 37 | | 11 | 6 | 4 98 |
| 300 | 14 | 5 | 8 | 57 | | 15 | 12 | 9 55 | | 16 | 19 | 7 47 |
| 400 | 19 | 0 | 11 | 43 | | 20 | 17 | 0 74 | | 22 | 12 | 9 96 |
| 500 | 23 | 16 | 2 | 29 | | 26 | 1 | 3 92 | | 28 | 6 | 0 45 |
| 600 | 28 | 11 | 5 | 15 | | 31 | 5 | 7 11 | | 33 | 18 | 2 94 |
| 700 | 33 | 6 | 8 | 00 | | 36 | 9 | 10 29 | | 39 | 12 | 5 43 |
| 800 | 38 | 1 | 10 | 86 | | 41 | 14 | 1 48 | | 45 | 5 | 7 93 |
| 900 | 42 | 17 | 1 | 72 | | 46 | 18 | 4 66 | | 50 | 18 | 10 42 |
| 1000 | 47 | 12 | 4 | 57 | | 52 | 2 | 7 85 | | 56 | 12 | 0 90 |

Rebate at 6 per Centum.

| | | 13 Moneths | | | | 14 Moneths | | | | 15 Moneths | | | |
|--|----------------|------------|-----|-------|-------|------------|-----|-------|-------|------------|-----|----|--------|
| | | li. | sh. | d. | c. | li. | sh. | d. | c. | li. | sh. | d. | c. |
| | <i>Shill.</i> | | | | 3 06 | | | | 3 92 | | | | 4 19 |
| | 5 | | | | 7 02 | | | | 7 85 | | | | 8 37 |
| | 10 | | | | 10 98 | | | | 11 78 | | | | 1 0 56 |
| | 15 | | | | | | | | | | | | |
| | <i>Pounds.</i> | | | | | | | | | | | | |
| | 1 | 1 | 2 | 64 | | 1 | 3 | 70 | | 1 | 4 | 74 | |
| | 2 | 2 | 5 | 29 | | 2 | 7 | 40 | | 2 | 9 | 49 | |
| | 3 | 3 | 7 | 94 | | 3 | 11 | 10 | | 4 | 2 | 23 | |
| | 4 | 4 | 10 | 59 | | 5 | 2 | 80 | | 5 | 6 | 98 | |
| | 5 | 6 | 1 | 24 | | 6 | 6 | 50 | | 6 | 11 | 72 | |
| | 6 | 7 | 3 | 89 | | 7 | 10 | 20 | | 8 | 4 | 47 | |
| | 7 | 8 | 6 | 53 | | 9 | 1 | 90 | | 9 | 9 | 21 | |
| | 8 | 9 | 9 | 18 | | 10 | 5 | 61 | | 11 | 1 | 96 | |
| | 9 | 10 | 11 | 83 | | 11 | 9 | 31 | | 12 | 6 | 70 | |
| | 10 | 12 | 02 | 48 | | 13 | 1 | 1 | | 13 | 11 | 44 | |
| | 20 | 1 | 4 | 4 26 | | 1 | 6 | 2 2 | | 1 07 | 10 | 88 | |
| | 30 | 1 | 16 | 7 44 | | 1 | 19 | 3 3 | | 2 01 | 10 | 32 | |
| | 40 | 2 | 8 | 9 91 | | 2 | 12 | 4 4 | | 2 15 | 9 | 76 | |
| | 50 | 3 | 1 | 0 39 | | 3 | 05 | 5 5 | | 3 09 | 9 | 21 | |
| | 60 | 3 | 13 | 2 87 | | 3 | 18 | 6 6 | | 4 03 | 8 | 65 | |
| | 70 | 4 | 5 | 5 45 | | 4 | 11 | 7 7 | | 5 07 | 8 | 09 | |
| | 80 | 4 | 17 | 7 83 | | 5 | 4 | 8 8 | | 5 11 | 7 | 53 | |
| | 90 | 5 | 9 | 10 31 | | 5 | 17 | 9 9 | | 6 05 | 6 | 98 | |
| | 100 | 6 | 2 | 0 75 | | 6 | 10 | 10 09 | | 6 19 | 6 | 41 | |
| | 200 | 12 | 4 | 1 58 | | 13 | 1 | 8 19 | | 13 19 | 0 | 83 | |
| | 300 | 18 | 6 | 2 37 | | 19 | 12 | 6 28 | | 20 13 | 7 | 25 | |
| | 400 | 24 | 8 | 3 15 | | 26 | 3 | 4 37 | | 27 18 | 1 | 67 | |
| | 500 | 30 | 10 | 3 94 | | 32 | 14 | 2 47 | | 34 17 | 8 | 09 | |
| | 600 | 36 | 12 | 4 73 | | 39 | 6 | 0 56 | | 41 17 | 2 | 51 | |
| | 700 | 42 | 14 | 5 52 | | 45 | 15 | 10 65 | | 48 16 | 8 | 93 | |
| | 800 | 48 | 16 | 6 31 | | 52 | 6 | 8 75 | | 55 16 | 3 | 35 | |
| | 900 | 54 | 18 | 7 10 | | 58 | 17 | 6 84 | | 62 15 | 9 | 77 | |
| | 1000 | 61 | 00 | 7 89 | | 65 | 8 | 4 93 | | 69 15 | 4 | 09 | |

Rebate at 6 per Centum.

| | 16 Moneths | | | | 17 Moneths | | | | 18 Moneths | | | |
|----------------|------------|-----|----|----|------------|-----|----|----|------------|-----|----|----|
| | li. | sh. | d. | c. | li. | sh. | d. | c. | li. | sh. | d. | c. |
| <i>Shill.</i> | 5 | | 4 | 44 | | | 4 | 70 | | | 4 | 95 |
| 10 | | | 8 | 89 | | | 9 | 40 | | | 9 | 91 |
| 15 | | 1 | 1 | 33 | | 1 | 2 | 10 | | 1 | 2 | 86 |
| <i>Pounds.</i> | 1 | 1 | 5 | 78 | 1 | 6 | 80 | | 1 | 7 | 82 | |
| 2 | 2 | 11 | 55 | | 3 | 1 | 60 | | 3 | 3 | 63 | |
| 3 | 4 | 5 | 33 | | 4 | 8 | 40 | | 4 | 11 | 45 | |
| 4 | 5 | 11 | 11 | | 6 | 3 | 21 | | 6 | 7 | 27 | |
| 5 | 7 | 4 | 89 | | 7 | 10 | 01 | | 8 | 3 | 08 | |
| 6 | 8 | 10 | 67 | | 9 | 4 | 81 | | 9 | 11 | 90 | |
| 7 | 10 | 4 | 44 | | 10 | 11 | 61 | | 11 | 6 | 72 | |
| 8 | 11 | 10 | 22 | | 12 | 6 | 41 | | 13 | 2 | 53 | |
| 9 | 13 | 4 | 00 | | 14 | 1 | 22 | | 14 | 10 | 35 | |
| 10 | 14 | 9 | 78 | | 15 | 8 | 02 | | 16 | 6 | 14 | |
| 20 | 1 | 9 | 7 | 55 | 1 | 11 | 4 | 04 | 1 | 13 | 0 | 33 |
| 30 | 2 | 4 | 5 | 33 | 2 | 7 | 0 | 06 | 2 | 9 | 6 | 54 |
| 40 | 2 | 19 | 3 | 11 | 3 | 2 | 8 | 07 | 3 | 6 | 0 | 66 |
| 50 | 3 | 14 | 0 | 89 | 3 | 18 | 4 | 09 | 4 | 2 | 6 | 83 |
| 60 | 4 | 8 | 10 | 67 | 4 | 14 | 0 | 11 | 4 | 19 | 0 | 99 |
| 70 | 5 | 3 | 8 | 44 | 5 | 9 | 8 | 13 | 5 | 15 | 7 | 16 |
| 80 | 5 | 18 | 6 | 22 | 6 | 5 | 4 | 15 | 6 | 12 | 1 | 33 |
| 90 | 6 | 13 | 4 | 00 | 7 | 1 | 0 | 17 | 7 | 8 | 7 | 43 |
| 100 | 7 | 8 | 1 | 78 | 7 | 16 | 8 | 18 | 8 | 5 | 1 | 69 |
| 200 | 14 | 16 | 3 | 55 | 15 | 13 | 4 | 37 | 16 | 10 | 3 | 33 |
| 300 | 22 | 4 | 5 | 33 | 23 | 10 | 0 | 55 | 24 | 15 | 4 | 98 |
| 400 | 29 | 12 | 7 | 11 | 31 | 6 | 8 | 74 | 33 | 00 | 6 | 61 |
| 500 | 37 | 0 | 8 | 89 | 39 | 3 | 4 | 92 | 41 | 05 | 8 | 26 |
| 600 | 44 | 8 | 10 | 67 | 47 | 0 | 1 | 11 | 49 | 10 | 9 | 94 |
| 700 | 51 | 17 | 0 | 44 | 54 | 16 | 9 | 29 | 57 | 15 | 11 | 56 |
| 800 | 59 | 5 | 2 | 22 | 62 | 13 | 5 | 48 | 66 | 1 | 1 | 21 |
| 900 | 67 | 13 | 4 | 00 | 70 | 10 | 1 | 66 | 74 | 6 | 2 | 87 |
| 1000 | 74 | 1 | 5 | 78 | 78 | 6 | 9 | 84 | 82 | 11 | 4 | 51 |

Rebate at 6 per Cent.

| Months | d. c. | 19 Months | | | 20 Months | | | 21 Months | | |
|--------|-------|-----------|-----|-------------|-----------|-----|-------------|-----------|-----|-------------|
| | | li. | sh. | d. c. | li. | sh. | d. c. | li. | sh. | d. c. |
| 4 95 | 5 | | | 5 20 | | | 5 45 | | | 05 70 |
| 9 91 | 10 | | | 10 41 | | | 10 91 | | | 11 40 |
| 2 86 | 15 | | | 1 3 62 | | | 1 4 36 | | | 1 05 10 |
| 7 82 | 1 | | | 01 08 82 | | | 01 09 82 | | | 01 10 80 |
| 3 63 | 2 | | | 03 05 64 | | | 03 07 64 | | | 03 09 61 |
| 11 45 | 3 | | | 05 02 46 | | | 05 05 46 | | | 05 08 42 |
| 7 27 | 4 | | | 06 11 29 | | | 07 03 27 | | | 07 07 22 |
| 3 08 | 5 | | | 08 08 11 | | | 09 01 19 | | | 09 06 03 |
| 11 90 | 6 | | | 10 04 93 | | | 10 10 91 | | | 11 04 83 |
| 6 72 | 7 | | | 12 01 75 | | | 12 08 73 | | | 13 03 64 |
| 2 53 | 8 | | | 13 10 57 | | | 14 06 55 | | | 15 02 45 |
| 10 35 | 9 | | | 15 07 40 | | | 16 04 37 | | | 17 01 25 |
| 6 18 | 10 | | | 17 04 22 | | | 18 02 18 | | | 19 00 05 |
| 0 33 | 20 | | | 1 14 08 44 | | | 1 16 04 36 | | | 1 18 00 11 |
| 6 52 | 30 | | | 2 12 00 66 | | | 2 14 06 54 | | | 2 17 00 16 |
| 0 66 | 40 | | | 3 09 04 88 | | | 3 12 08 72 | | | 3 16 00 22 |
| 6 83 | 50 | | | 4 06 09 10 | | | 4 10 10 91 | | | 4 15 00 27 |
| 0 99 | 60 | | | 5 04 01 32 | | | 5 09 01 09 | | | 5 14 00 33 |
| 7 16 | 70 | | | 6 01 05 54 | | | 6 07 03 27 | | | 6 13 00 38 |
| 1 33 | 80 | | | 6 18 09 76 | | | 7 05 05 45 | | | 7 12 00 44 |
| 7 42 | 90 | | | 7 16 01 98 | | | 8 03 07 64 | | | 8 11 00 49 |
| 1 65 | 100 | | | 8 13 06 19 | | | 9 01 09 82 | | | 9 10 00 54 |
| 3 33 | 200 | | | 17 07 07 38 | | | 18 03 07 64 | | | 19 00 01 08 |
| 4 98 | 300 | | | 26 00 06 57 | | | 27 05 05 46 | | | 28 10 01 63 |
| 6 61 | 400 | | | 34 14 00 77 | | | 36 07 03 27 | | | 38 00 02 17 |
| 8 26 | 500 | | | 43 07 06 96 | | | 45 09 01 09 | | | 47 10 02 71 |
| 9 91 | 600 | | | 52 01 01 15 | | | 54 10 10 91 | | | 57 00 03 26 |
| 1 56 | 700 | | | 60 14 07 34 | | | 63 12 08 73 | | | 66 10 03 80 |
| 1 21 | 800 | | | 69 08 01 53 | | | 72 14 06 55 | | | 76 00 04 34 |
| 2 87 | 900 | | | 78 01 07 73 | | | 81 16 04 37 | | | 85 10 04 89 |
| 4 51 | 1000 | | | 86 15 01 92 | | | 90 18 02 18 | | | 95 00 05 43 |

Rebate at 6 per Centum.

| | | 22 Months | | | | 23 Months | | | | 24 Months | | | |
|---------|------|-----------|-----|----|----|-----------|-----|----|----|-----------|-----|----|----|
| | | li. | sh. | d. | c. | li. | sh. | d. | c. | li. | sh. | d. | c. |
| Shill. | 5 | | | 5 | 94 | | | 6 | 19 | | | 06 | 43 |
| | 10 | | | 11 | 89 | 1 | 0 | 38 | | 1 | 00 | 85 | |
| | 15 | 1 | 5 | 84 | | 1 | 6 | 57 | | 1 | 07 | 28 | |
| Pounds | 1 | 01 | 11 | 78 | | 02 | 0 | 75 | | 02 | 01 | 71 | |
| | 2 | 03 | 11 | 56 | | 04 | 1 | 51 | | 04 | 03 | 43 | |
| | 3 | 05 | 11 | 35 | | 06 | 2 | 26 | | 06 | 05 | 14 | |
| | 4 | 07 | 11 | 13 | | 08 | 3 | 01 | | 08 | 06 | 86 | |
| | 5 | 09 | 10 | 92 | | 10 | 3 | 77 | | 10 | 08 | 57 | |
| | 6 | 11 | 10 | 70 | | 12 | 4 | 52 | | 12 | 10 | 29 | |
| | 7 | 13 | 10 | 49 | | 14 | 5 | 27 | | 15 | 00 | 00 | |
| | 8 | 15 | 10 | 27 | | 16 | 6 | 03 | | 17 | 01 | 72 | |
| | 9 | 17 | 10 | 05 | | 18 | 6 | 78 | | 19 | 03 | 41 | |
| Pounds. | 10 | 19 | 09 | 84 | | 1 | 00 | 07 | 53 | 1 | 01 | 05 | 14 |
| | 20 | 1 | 19 | 07 | 67 | 2 | 01 | 03 | 06 | 2 | 02 | 10 | 28 |
| | 30 | 2 | 19 | 05 | 51 | 3 | 01 | 10 | 60 | 3 | 04 | 03 | 43 |
| | 40 | 3 | 19 | 03 | 35 | 4 | 02 | 06 | 13 | 4 | 05 | 08 | 57 |
| | 50 | 4 | 19 | 01 | 19 | 5 | 03 | 01 | 67 | 5 | 07 | 01 | 71 |
| | 60 | 5 | 18 | 11 | 03 | 6 | 03 | 09 | 20 | 6 | 08 | 06 | 86 |
| | 70 | 6 | 18 | 08 | 86 | 7 | 04 | 04 | 74 | 7 | 10 | 00 | 00 |
| | 80 | 7 | 18 | 06 | 70 | 8 | 05 | 00 | 27 | 8 | 11 | 05 | 14 |
| | 90 | 8 | 18 | 04 | 54 | 9 | 05 | 07 | 80 | 9 | 12 | 10 | 28 |
| | 100 | 9 | 18 | 02 | 38 | 10 | 06 | 03 | 34 | 10 | 14 | 03 | 43 |
| | 200 | 19 | 16 | 04 | 76 | 20 | 12 | 06 | 07 | 21 | 08 | 06 | 86 |
| | 300 | 29 | 14 | 07 | 14 | 30 | 18 | 10 | 01 | 32 | 02 | 10 | 29 |
| | 400 | 39 | 12 | 09 | 51 | 41 | 05 | 01 | 35 | 42 | 17 | 01 | 71 |
| | 500 | 49 | 10 | 11 | 89 | 51 | 11 | 04 | 68 | 53 | 11 | 05 | 14 |
| | 600 | 59 | 09 | 02 | 27 | 61 | 16 | 08 | 02 | 64 | 05 | 08 | 57 |
| | 700 | 69 | 07 | 04 | 65 | 72 | 03 | 11 | 36 | 75 | 00 | 00 | 00 |
| | 800 | 79 | 05 | 07 | 03 | 82 | 10 | 02 | 69 | 85 | 14 | 03 | 43 |
| | 900 | 89 | 03 | 09 | 41 | 92 | 16 | 06 | 03 | 96 | 8 | 06 | 86 |
| | 1000 | 99 | 01 | 11 | 78 | 103 | 2 | 09 | 36 | 107 | 2 | 10 | 28 |



The use of these Tables.

I.

WHat is the rebate out of 500 pound due 6 moneths hence, to be paid at present? and so how much ready money will satisfie the said debt of 500 pound?

By the Table you shall finde that 14 pound, 11 shillings, 3 pence and half a farthing, is to be abated.

| | <i>li.</i> | <i>sh.</i> | <i>d.</i> |
|---------------------------------|------------|------------|-----------|
| So that, the debt being | 500 | 00 | 00 |
| The rebatement to be subtracted | 14 | 11 | 3 |
| | <hr/> | | |
| So there remaines | 485 | 08 | 09 |

And so much ready money will satisfie the said debt.

If you cannot finde the whole debt in one line of the Tables, or if the debt be to be paid at two or three payments, then you must take it out of the Tables severally, and then adde them together.

As suppose *A* hath sold a bargain to *B* of 1500 pound, to be paid at three six moneths, 500 pound a time: what is the value of it in ready money?

| | <i>li.</i> | <i>sh.</i> | <i>d.</i> | <i>q.</i> |
|--------------------------------------|------------|------------|-----------|-----------|
| <i>The debt is</i> | 1500 | 00 | 00 | 0 |
| <i>Rebate of 500l. for 6 moneths</i> | 14 | 11 | 03 | 0 |
| <i>Rebate of 500l. for 12 mon.</i> | 28 | 06 | 00 | 2 |
| <i>Rebate of 500l. for 18 mon.</i> | 41 | 05 | 08 | 1 |
| <i>The Sum of the Rebates</i> | 84 | 02 | 11 | 3 |

*which subtracted from
the whole debt, there
remains*

1415 17 00 1

The money which must be paid at present.

There is another kinde of Rebate-ment, by way of reducing divers times of payment all into one, which is many times used, but yet is not altogether so exact as it should be.

For example: Suppose the said debt of 1500 *li.* to be paid at three 6 moneths, what time will the whole debt be due to be paid altogether?

The rule is thus: First, multiply the summes of money, by the times of their payment, and adde the severall products together; thus,

| | | |
|------------------------------------|---------------|---------------|
| 500 pounds | 500 pounds | 500 pounds |
| By 6 moneths | by 12 moneths | by 18 moneths |
| <hr/> | <hr/> | <hr/> |
| is 3000 | is 6000 | is 9000 |
| | | 6000 |
| <i>which three added together.</i> | | |
| | | 3000 |
| | | <hr/> |

The Sum of them all is 18000

And this product divided by the whole debt 1500 pound, the quotient will shew 12 moneths for the time of payment.

Ths

This rule is not much out of the way; yet somewhat it fails, as will appear by comparing it with the former. For if the said 1500 pound be to be paid all at 12 moneths, then the worth of it in ready money will appear to be but 1415 pound, 1 shilling, 10 pence, 2 farthings, whereas the true value of the debt in ready money was before found to be 1415 pound, 17 shillings, one farthing; by this means therefore the Creditour will lose 15 shillings, one peny, three farthings more then he ought to rebate.

Yet this way of reducing of payments comes so neer the exact truth, that I cannot prescribe a better way in general, to finde it out. But if any will be so punctual, and think it worth their labour, let them try one by the other, and so finding the difference, which here is 15 shillings; finde out by the Tables of Interest, in how many dayes the 1500 pound will require 15 shillings Interest; and you shall finde the neereſt time is 3 dayes. For the Interest of 1500 pound for three dayes is 14 shillings, 9 pence: these

these three dayes therefore being taken from the 12 Moneths aforesaid, shewes the true time due for the payment of the whole 1500 pound.

I V.

If any will be so strict in their Rebate-ments, as to look after any time under a moneth; they may, by the former Tables of Interest, finde out the Interest of their principall debt for the odde dayes, and adde that to the Rebate-ment for the moneths, without much errour.

But if they will be mere exact, let them, by the Tables of daily Interest, finde out the Interest of 100 pound for the time desired, and work by the former rule, according to the rule of proportion.

Thus, if you would know the rebate out of an hundred pound for 190 dayes.

The Interest for 190 dayes is 3 pound, 1200 parts. Therefore,

li.

li.

li.

li.

As 103.1200, to 100; So 100, to 96,9744.

H

which

Which is 96 pound, 19 shillings, 6 pence, *ferè*.

And thus much for these Tables of Interest. All that I have said hitherto hath been about Interest either simple or compound, by which you may see the good use which may be made thereof, and how the abuse may be avoided and prevented.

And here I thought to have put an end to this little Book. But since there are many other things of a generall concernment, and not impertinent to the former Discourse, I shall adde somewhat concerning a few of them, as
briefly as I
can.

THE
PURCHASERS
P A T E R N:

The Second Part.

Shewing the measuring of
Board, Land, Timber, Stone,
and the Gauging of
Casks.

With many other Rules and
Tables of daily use for most men.

By *Henry Philippes.*

L O N D O N,

Printed by *R. and W. Leybourn,*
for *Thomas Pierrepont,* at the
Sun in *Pauls Church-yard,*
MDC L I V.



F

the
the
the
the

kn
su

an

th

G

to



TO THE READER.

H *E that hath any thing
to do with Land or
Houses, will have some
occasion to have some
knowledge in the Art of mea-
suring Land, Board, Timber,
and such like; and therefore I
thought good to adjoyn these
Geometricall Observations,
to the former Discourse: where-
by*

To the Reader.

by those, whose Genius leads them any thing this way, may attain some good knowledge therein, and receive much profit thereby.

The other things likewise are of such generall concernment and frequent use, that they will be profitable to most: and therefore though they are more commonly written of, yet I hope you will finde somewhat therein worth your reviews and acceptance.

Geo-



Geometrical Observations.

*Of measure, which consists onely
in length.*



Three barley-cornes make one
inch.

Twelve inches make one
foot.

Three foot make one yard; which is
common English measure, wherewith
most English commodities are measured.
As for the El, though it be commonly
used among us, yet the Statute takes
little or no notice of it, it being a for-
reign measure, and used about forreign
commodities, as Silks, and French Lin-
ens. The length of the El is five quar-
ters of our yard; so that five yards are
four Els.

These are the measures, by which all

H 4

small

small quantities are measured; but for measuring of Land they make use of Poles or Rods.

16 foot and an half make a Pole or Perch.

40 Poles make a Furlong.

8 Furlongs make a Mile.

So that in a measured Mile, there are 320 Poles, or 1760 yards, or 5280 feet, or 63360 inches, or 190080 barley-corns. But the miles commonly accounted from one place to another are more, unless within 20 miles round off London.

To measure things which have length and breadth, as Board, Glasse, Pavements, Tyling, wainscot, and such like.

THese things are all measured after the same way; onely there is a difference in the measure by which they are measured. For Board and Glass are measured by the foot; Wainscot, Pavements, and Tyling, by the yard.

Now

Now in measuring any of these, an Inch, Foot, or Yard, is not onely so much in length, but so much in breadth too, that is, so much square; or if it lacks of it one way, it must be made up the other way. So that upon this account there is

9 square feet in one yard.

144 square Inches in one foot.

72 square Inches in half a foot.

36 square Inches in a quarter of a foot.

Now in the measuring of any of these things, you must consider what forme or fashion it is of; and accordingly there are severall rules.

First, for Boards, they are usually cut out in long squares. And to measure such, you must first take the breadth thereof in Inches, and likewise the length thereof in Inches; and multiply them one by the other; so you shall have the content thereof in Inches: then to know how many feet it is; divide this number by 144, the square inches in one foot, and the quotient will shew the number of feet; and if any

H 5

thing

thing remain, it is so many Square Inches; which you may value by the former Table.

| | |
|----|-----|
| 10 | 60. |
|----|-----|

Thus for example: Suppose a Board to be 10 Inches broad, and 5 foot, or 60 Inches long: Multiply 60 by 10, it makes 600, which divided by 144, the quotient will be 4, and there remains 24. So that the board is four feet, and two thirds of one quarter of a foot.

This is the usuall forme of boards; onely sometimes they are a little narrower at one end then at the other; in his case you may take the bredth in the middle of the board; and then do, as before.

But because most men have not skill thus to divide and multiply; therefore they make use of Tables and lines set upon rules, shewing how many Inches in length fitted to any breadth wil make

a foot; and so by their Compasses or Ruler, they try how many times the said quantity is contained in the length of that board, and reckon it to be so many foot long. This way is ancient, and is much used; and I no wayes finde fault therewith: and the Tables hereof are so common, that I shall not need to set them down. Onely for variety, and in conformity to some following conclusions, I shall present you with this new Table of Board-measure, which may be used as it stands in the book, or drawn into a line, and set upon a Ruler.

A Table of Board-measure.

| | <i>F. parts</i> | | <i>F. parts</i> |
|-----------------|-----------------|-----------------|-----------------|
| <i>Breadth.</i> | 1 0,083 | <i>Breadth.</i> | 19 1,583 |
| | 2 0,167 | | 20 1,667 |
| | 3 0,250 | | 21 1,750 |
| | 4 0,333 | | 22 1,833 |
| | 5 0,417 | | 23 1,917 |
| | 6 0,500 | | 24 2,000 |
| | 7 0,583 | | 25 2,083 |
| | 8 0,667 | | 26 2,167 |
| | 9 0,750 | | 27 2,250 |
| | 10 0,833 | | 28 2,333 |
| | 11 0,917 | | 29 2,417 |
| | 12 1,000 | | 30 2,500 |
| | 13 1,083 | | 31 2,583 |
| | 14 1,167 | | 32 2,667 |
| | 15 1,250 | | 33 2,750 |
| | 16 1,333 | | 34 2,833 |
| | 17 1,417 | | 35 2,917 |
| | 18 1,500 | | 36 3,000 |

This

This Table shewes the proportion which one foot in the length, having any number of Inches in the breadth hath to a foot of board, which should contain 144 square inches, as aforesaid.

It is thus made by this rule,

As 12 Inches in breadth, and one foot in length,

Is to one foot of board-measure;

So any other number of Inches in breadth, multiplied by one foot, or 12 Inches in length,

To the proportionall part thereof to a foot.

For example; if you would finde the proportion which one foot length of 10 Inches broad hath to a foot, multiply this 10 Inches by 12, it makes 120. Then,

As 144, to 1, foot; so 120, to 0,833.

That is, somewhat above three quarters of a foot, being 833 thousand parts of a foot.

But

But now for the use of this Table.

Having measured the breadth of your board, finde it out in the Table, and take the number you finde there, and multiply it by the feet which are contained in the length of the board; so cutting off the three last figures, you shall have the number of feet, and the figures cut off will shew the parts of a foot.

Thus in the former example, the board being 10 Inches broad, and 5 feet long,

*The number for 10 Inches broad is 9,833
which multiplied by 5*

Makes 4,9165

That is, four feet, and two thirds of a quarter, as before.

If you think this too much labour, you may leave out the last figure in the Table, and so work by 100 parts of a foot, but the other will be more exact.

And thus much for these usuall forms
of

of Boords; as for any other formes of Pavements, Glasſe, or Wainſcot, you may ſee how they are to be meaſured in the following examples of land, which I account the more uſeful and Gentile employment, and therefore ſhall ſpeak a little more largely of it.

How to meaſure any piece of Land.

FIrſt in generall, Land is meaſured by a Pole, Perch, or Rod, which is uſually 16 feet, and an half long; yet in ſome places they uſe a Pole of 18 feet, eſpecially for Wood-lands.

Now, according to the Statute, 4 Poles in bredth, and 40 Poles in length make an Acre. So that

| | | |
|-----------------------|-----|-----------------|
| One Acre contains | 160 | } ſquare Poles. |
| Half an Acre contains | 80 | |
| A quarter, or 1 Rod, | 40 | |

Some

Some use Chains of four or more Poles long, and divide them, as their fancy pleaseth; I shall onely shew you how to do it by Poles.

But now since every field and parcel of Land hath almost a different forme: I shall shew you first, how to measure some of the generall and common forms; and then how to reduce others thereunto.

I.

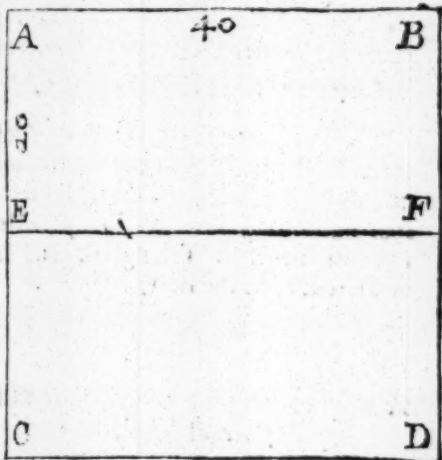
How to measure a square piece of Land.

THIS is one of the most common formes, and most easily to be understood. The measuring hereof is, as I shewed before, in the board. For whether it be a long square, as that was, or that the sides be every way equal, as this is: Multiply one of the sides by another of the sides next unto it, (not opposite to it) and the product shewes the content in Poles; which divided by

sent
squa
by 4
160,
Land

(161)

by 160, will give the content in acres.



Thus, let the square $A B C D$ represent a piece of Land, being 40 Poles square each way. Then 40 multiplied by 40, make 1600, and this divided by 160, yields 10, which shews the piece of Land is just 10 acres.

~~But~~ But

But now if this square were longer one way then another; as suppose the upper half of it, *ABEF*. Here now *AB* is 40 Poles, but *AE* is but 20; these two multiplied, make 800; and this divided by 160, yields 5 acres.

But here note, that every four-sided piece of Land is not square, neither can thus be measured; therefore these four-sided irregular figures may best be reduced into two Triangles, and so measured, as in the next.

II.

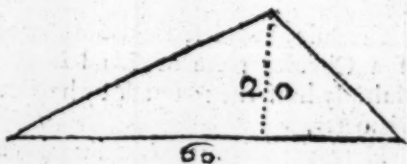
To measure a Triangular, or three-sided piece of Land.

THough there are few parcels of Land lie in this forme, yet this is the most common form which is measured; because almost all parcels of Land must be reduced into these Triangles before they can be measured.

In the measuring of all sorts of Triangles, the rule is this,

Ob.

Observe which is the longest side, and then measure how many Poles it is from the angle opposed to that side by the neereſt way that you can, (which is perpendicularly) to that long ſide; as is represented by the pricked line in the Triangle following. Then multiply the halfe of this line by the whole long line; or the halfe of the long line by the whole of this line, as you ſhall ſee moſt convenient; and ſo you ſhall have the content of the Triangle in poles, which you may reduce into acres, as before.



Thus, ſuppoſe the longeſt ſide of the Triangle to be 60 Poles; and the pricked, or perpendicular line 20 Poles. You may multiply either 60 by 10, or 20 by 30, the product is 600, which divided by

by 160, shewes the content to be three Acres, and three Rods, or quarters.

III.

To measure a Circular piece of Land.

THere is much ado made about this, and yet but little use thereof; for very little Land falls out to be exactly in this forme. It were better, if some way were thought of to measure some small Sections of Circles, which many times hang to the sides of Land.

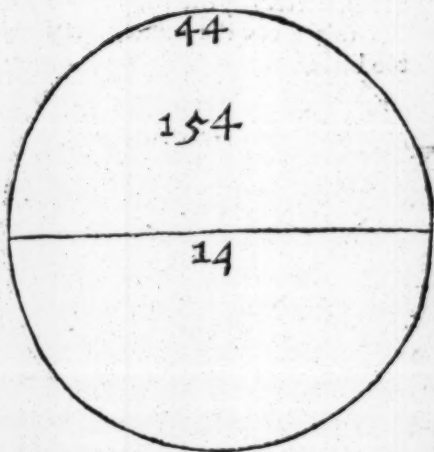
The rule, in brief, for the measuring of a Circular piece of Land is this, Multiply half the compasse by half the Diameter.

Note, the Diameter is a line drawn crosse the midst of the Circle.

Thus, the Diameter being 14 Poles, and the compasse 44: the halfe of both these is 7 and 22; which multiplied together, yield 154 Poles, which lacks onely six Poles of an Acre.

The

(167)

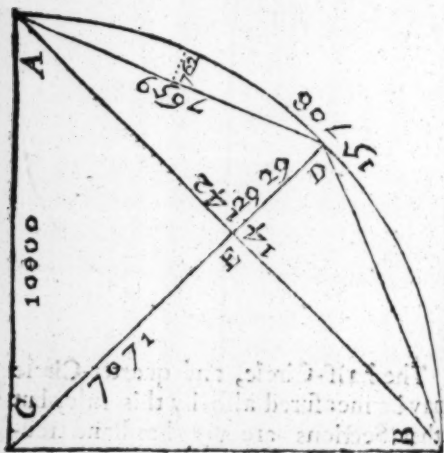


The half-Circle, and quarter-Circle may be measured also by this rule, but other Sections are very hard and troublesome, and scarce to be found out, without knowing the content of the whole Circle, or Semicircle; and so of the greater part thereof: and so the remainder is the lesser Section.

Some, to avoid this trouble, measure the

(166)

the perpendicular line, (or the part of the Diameter) by the half of the Arch. But this gives the content very much too little,



For Example,

Suppose in the Quadrant ABC , the Radius or Semidiameter being 10000,

(167)

rt of
Arch.
much
10000; and the arch $A D B$ 15708
Half this compasse 7854
Multiplied by the Radius, 10000

Yields for the content of }
the whole Quadrant } 78540000

Again, in the plain Triangle $A B C$,

The base $A B$ is 14142

The half whereof is 7071

which multiplied by the Per- }
pendicular $E C$ } 7071

Yields for the content thereof 49999041

which should be 50000000

But the numbers 7071 being not perfect numbers, cause this small difference, which is not to be regarded.

Now the content of the }
whole Quadrant being } 78540000

And the content of the }
Triangle $A B C$, a part } 50000000
thereof being subtracted }

Remains for the section $A D B E$ 28540000

This being the true content of the
said

said Section, if you try the other Rule by it, you will finde it much too little.

For the half of the arch ADB is 7854
 which multiplied by the Per-
 pendicular DE 2929

Yields onely 23004366

Whereas it should be 28540000

But you may save much of the former trouble, and will come more near the truth, if you take the Chord AB, and the Perpendicular DE, and multiply the whole of the one by two thirds of the other, Thus,

The Chord AB being 14142

Multiplied by $\frac{2}{3}$ of 2929 1953

Yields 27619326

which indeed should be 28540000

But yet it is much neerer
 then the number found
 the other way. } 23004366

And

And if the Chord be leſſe, this way will be more exact. And therefore if you will be ſo curious; you may firſt find the content of the plain Triangle $ADB E$ in this Section, and then the content of the two little Sections, AD and DB .

Thus the content of the plain Triangle $ADB E$ will be } 20710959
found to be

And the content of the Section AD will thus be found,

| | |
|--------------------------------|------|
| The Chord AD is | 7659 |
| The Perpendicular | 762 |
| The two thirds thereof | 508 |
| By which multiplying the Chord | 7659 |

It yields 3890772
for the content of the ſection AD .

Now the Section DE is like to the Section AD in every reſpect; therefore,

This number doubled 389077
is the content of both the sections 778154
which add to the Triang. ADBE 20710959

Makes the content of the } 28492503
whole Section ADBE }

Whereas it should be 28540000

So that it wants onely 00047497

Which, though it seems much in these great numbers, yet will not scarce be considerable in smaller numbers, and in lesser Sections will come more neer to the exact truth.



T

H

parce
 fore be
 reduce
 figures
 best fo
 ny pic
 severa
 do eith
 very g
 plot of
 lines o
 into a
 whole
 finding

70

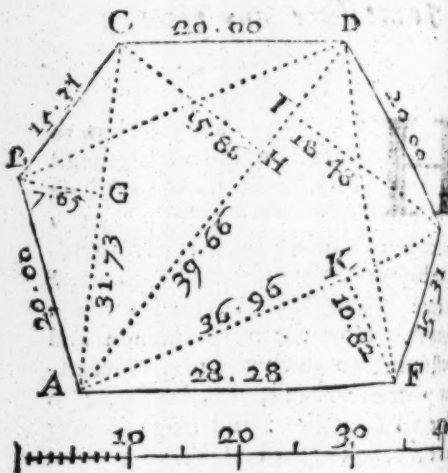


*To measure any piece of
Land.*

Hitherto you have seen how to measure any parcel of ground which lies in any one of these single formes; but very few parcels of ground do so; and therefore before you can measure it, you must reduce it into some of these foresaid figures. Now the most common and best form into which you may reduce any piece of ground, is to lay it out in severall Triangles: and this you may do either in the field it self, (if it be not very great) or else you must draw a plot of the field, and so draw severall lines overthwart it; which may divide it into as few Triangles (taking in the whole) as possible may be: and then finding the content of these severall

(172)

Triangles, and adde them a'together,
and so you shall have the content of the
whole field.



Thus in this figure, which represents
a piece of ground, having six unequal
sides, you may reduce it into four Tri-
angles, by drawing the three lines AD , AE ,
 BE , from the angle at A .

Now

Now to finde the content of this field;
 first, in the Triangle ABC , you must
 measure the longest line thereof AC ,
 which is 31 Poles, 73 hundred parts:
 then measure the perpendicular line
 BG , which is 7 Poles, 85 parts. Now
 multiply the one of these numbers by
 the half of the other, viz. 31.73 by
 3.81. and so you shall finde the content
 of this Triangle to be 121 poles, 21
 parts.

Secondly, in the Triangle ACD .

| | poles | parts |
|--------------------------------|-------|-------|
| The length of the line AD is | 39 | 66 |
| Length of the Perpend. CH is | 15 | 86 |
| So the content thereof is | 314 | 50 |

Thirdly in the Triangle ADE .

| | poles | parts |
|--------------------------------|-------|-------|
| The length of the line AD is | 39 | 66 |
| Length of the Perpend. EI is | 18 | 48 |
| So the content thereof is | 366 | 46 |

I 3

Fourthly,

Fourthly, in the Triangle *A E F*.

| | poles | parts |
|--------------------------------------|-------|-------|
| The length of the line <i>A E</i> is | 36 | 96 |
| Length of the Perpend. <i>F K</i> is | 10 | 82 |
| So the content thereof is | 199 | 95 |

Now if you adde the content of these four Triangles altogether, viz,

| | poles | parts |
|-----------------------------|-------|-------|
| 1 The Triangle <i>A B C</i> | 121 | 21 |
| 2 The Triangle <i>A C D</i> | 314 | 50 |
| 3 The Triangle <i>A D E</i> | 366 | 46 |
| 4 The Triangle <i>A E F</i> | 199 | 95 |
| <hr/> | | |
| The Sum of them is | 1002 | 112 |

Which is the content of the whole field; the which if you divide by 160, to bring it into acres, shewes 6 acres, 1 rod, 2 poles, and 12 parts.

4 The most difficult task in this work is to finde the true length of the perpendiculars, especially if you measure it in the field it self, which must alwayes be taken very exactly.

To

To which purpose, there will be need
of two persons to help one another.

Thus, if you would finde the length
of the perpendicular BG , in the Trian-
gle ABC . Let one party stand at the
angle B , and let the other go from A
toward C , as directly as he can. Now
he that stands at the angle A will
plainly see whether the other swerveth
to the right or left never so little, and
must direct him; this must be his part
in the work. The other man that
walks from A toward B , must carefully
observe when he comes just against the
angle B , that it may be just upon his
side, which will be when he is at G ,
from whence measuring up to B , he shall
have the true length of the line GB .

But if you have a plot of the field
in paper, then you need onely take your
compasses, and setting one foot in B , o-
pen the other, so that it may touch the
line AC in the neereſt place thereto;
which is in G , then measure this di-
ſtance upon your Scale of Poles, and ſo
you ſhall have the length thereof.

By this you may perceive, that if you

can draw a true plot of the field in paper, it will be a great help to the measuring thereof. This may be easily done by many Instruments, and those which have skill to use them. Or if a man have but a Ruler with Sights, and some convenient device to serve instead of a stool or table in the field, that so he may lay a sheet of paper thereon, he may draw the foresaid lines to the severall angles of the field; and so measuring the length of them, prick them down with his compasses, and drawing the boundary lines, he shall have the true plot of the field.

If this also be wanting, yet with a little more labour in measuring, you may thus perform it with your Ruler and Compasses.

First, being at the angle A, measure the side AB, noting it down in your book, as also the point of the Compass which it tends to, which for this purpose you may guesse at neer enough, if you have any skill therein, or else make use of any Sun-diall with a needle and compasse. Then likewise measure the
Line

line
and
neer
to A
of th
H
with
ses,
paper
setti
ny
point
The
out
Com
mal
king
the
inC
arc
an
A
C
A
th
C

line B C, noting the length thereof, and the point of the compasse it tends neereſt to. Thirdly, meaſure from C to A, and thus you have the three ſides of the Triangle A B C.

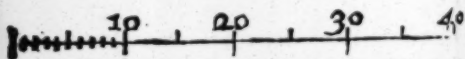
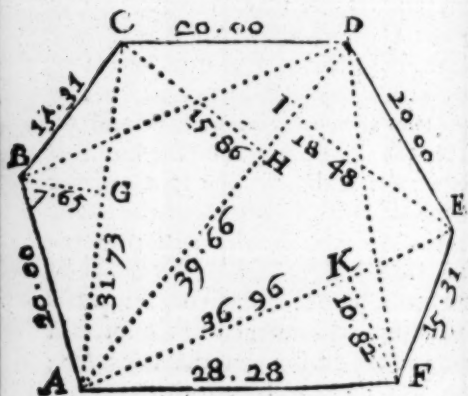
Having theſe three ſides, you may with your Ruler and a pair of compaſſes, thus ſet out this Triangle in any paper. Firſt, drawing the line A C, and ſetting off the length thereof out of any Scale of equall parts, make two points at the ends thereof at A and C. Then taking the length of the line A B out of the Scale, ſet one foot of your Compaffes in A, and with the other make a little arch at B. And then taking the length of the line B C out of the Scale, ſet one foot of your compaſſes in C, & with the other croſſe the foreſaid arch at B; ſo drawing the lines A B, and B C, you ſhall have the Triangle A B C truly drawn upon the paper.

In like manner, meaſuring the ſide C D, and the breadth of the field from A to D; and ſetting off the length of theſe two lines from the points A and C, as before; ſo you ſhall have the one

(178)

half of the field truly drawn.

Then measuring the side D E, and the breadth A E, from the points A and D you may make the angle at E, and so set of another part of the field contained in the Triangle A D E.



Lastly, measure the sides of the field E F and A F, and therewith from the points A and E, make the angle at F.

Thus you have all the angles of the field,

field, so that by drawing the lines from angle to angle, you have the true forme thereof, and the lines which you measured crosse the field will be of great use in casting up the content thereof, being the bases of four Triangles; so that you have nothing to measure but the perpendiculars, which you may finde out by your Scale, or now see how to measure them more exactly in the field it self.

The fittest Instrument used for this purpose is the Plain Table; which, for a shift, you may imitate with any Ruler with sights upon it, placing this Instrument at one corner of the field, as at A, you must turn the Ruler to the severall angles B, C, D, E, F, and draw the lines AB, AC, AD, AE, AF; then measure those distances, and setting of the length thereof by your Scale and Compasses; so you shall have the exact proportion of the field.

Or if you think this measuring too much labour, you may do thus, having taken the proportion of the angles at A, as before, you need measure onely
any

any one of the lines (but the most opposite to it is the best) as A D; then set up your Instrument at D, and set off the length of the line A D 39 poles, 66 parts out of your Scale from A to D; make this D your Centre-point, and so turning your Instrument, that the line D A may point directly to the angle at A, move your Ruler about to the other angles C, B, F, E, and draw the lines D C, D B, D F, D E, and where these lines crosse the foresaid lines, there lies the true place and posture of these bounds of the field, And if you have a care to draw these lines exactly, you may by your Scale and Compasses measure the length of any of these lines, almost as exactly as in the field it self.

And thus also at two stations, you may draw the plot of any larger piece of ground, or the platform of an whole Countrey, with the true distances of all the Towns and Villages therein, which you can see from both these places.

But many times it falls out, that in measuring great places, or Woods, or Hilly grounds, you can see but few of these

these angles at once. In this case, you must go round about the wood or field, measuring the sides thereof from angle to angle, and by your Instrument very diligently observing the quantity or proportion of these angles: So you shall have the true Symmetry of the field upon your paper, which you may divide into Triangles, and so finde the true quantity thereof, as before.

But these things require a larger Discourse, I have onely given you a taste; if you please, you may be better instructed by those who have written at large, and expressly hereof, as Mr. Rathborn, Mr. Diggs, and Mr. Leybourn in his *Compleat Surveyour*.



*Of the measuring of Solid
Bodies.*

IN the measuring of Timber, Stone, and such like solid bodies, there must be respect had not onely to the breadth and length, but also to the thicknesse. And there are many common rules used in the measuring of these things, which deserve some corrections.

First, herein you must know, that a foot of Timber is a foot square every way, viz. in length, breadth, and thicknesse: so that it is twelve times more then a foot of Board; a foot of Board being but 144 Inches, but a foot of Timber is 1728 Inches; and every Inch is square, like a Die, and so is the foot also supposed to be; or if it want of this, either in breadth, or in thicknesse,

neste, it must have it in length : So that in what forme soever it be, you must reckon thus :

1728 square Inches make one Foot.

864 square Inches make half a Foot.

432 square Inches make a quarter of a Foot.

The most common shape which Timber is brought into before it be measured is a long Square, having equall sides ; for Trees growing, for the most part, round, by cutting off from each side alike, they come readily into this Square.

Now to finde the content of such a piece of squared Timber, you must multiply the Inches of the breadth by the inches of the thicknesse, and then multiply this product by the inches of the length ; so you shall have the whole solid content in Inches, which if you divide by 1728, the Inches in one foot ; the quotient will shew you how many feet are in the piece of Timber.

But

But this way, though very exact, may seem somewhat too tedious, and therefore men, who have daily use hereof, have Tables and Lines upon their Rulers, by which having measured the Square of the Tree, they know how much in length will make a foot of Timber; and so taking out this with their Compasses, they measure how many times that length is found in the length of the piece of Timber; and so conclude it to be so many feet.

This way, as I shall not speak against it, so it is so common, that I need not set down the Tables thereof; but shall present you with this new Table, which you will finde somewhat more ready and exact, especially if you use your pen.

A Table shewing the true quantity of one foot length, of any true squared piece of Timber for inches & half inches

| | F.pts. | | F.pts. | | F.pts. |
|---------------|--------|----|--------|----|--------|
| $\frac{1}{2}$ | 0,002 | | 1,08; | | 4,166 |
| 1 | 0,007 | 13 | 1,174 | 25 | 4,340 |
| | 0,016 | | 1,266 | | 4,513 |
| 2 | 0,028 | 14 | 1,361 | 26 | 4,694 |
| | 0,043 | | 1,460 | | 4,877 |
| 3 | 0,062 | 15 | 1,562 | 27 | 5,063 |
| | 0,085 | | 1,668 | | 5,260 |
| 4 | 0,111 | 16 | 1,778 | 28 | 5,445 |
| | 0,140 | | 1,891 | | 5,670 |
| 5 | 0,174 | 17 | 2,007 | 29 | 5,840 |
| | 0,210 | | 2,127 | | 6,043 |
| 6 | 0,250 | 18 | 2,250 | 30 | 6,250 |
| | 0,293 | | 2,377 | | 6,460 |
| 7 | 0,340 | 19 | 2,507 | 31 | 6,673 |
| | 0,390 | | 2,641 | | 6,890 |
| 8 | 0,444 | 20 | 2,778 | 32 | 7,111 |
| | 0,502 | | 2,918 | | 7,333 |
| 9 | 0,562 | 21 | 3,062 | 33 | 7,562 |
| | 0,627 | | 3,210 | | 7,780 |
| 10 | 0,694 | 22 | 3,440 | 34 | 8,028 |
| | 0,765 | | 3,516 | | 8,263 |
| 11 | 0,840 | 23 | 3,673 | 35 | 8,507 |
| | 0,919 | | 3,835 | | 8,750 |
| 12 | 1,000 | 24 | 4,000 | 36 | 9,000 |

Inches Square



*The Demonstration of this
Table.*

AS the common tables of Timber-measure, shew how many Inches and parts make a foot of Timber, the Timber being any number of Inches square; so this shewes you by the square of the Timber-log in Inches, how many feet, or 1000 parts of a foot are contained in one foot length thereof.

Now because some may desire to enlarge this Table, that so it may shew not onely for the squares of Inches and half Inches, but the quarters, or tenth parts of Inches: (though these may be well enough by the proportion between the Inches and half Inches) yet I shall shew you the ground-worke of the Table,

Table, and so you may enlarge it at pleasure.

A foot of Timber, you all know, ought to be 12 Inches square every way, viz, 12 inches in breadth, 12 inches in thicknesse, and 12 inches in length. Therefore this proportion will follow,

If the Square of 12 inches which is 144

Require 1 foot in length, which is parts 1000

What shall any other

Square, viz. the } which is 36

Square of 6?

The answer will be

0.150



The use of the Table of Timber-measure.

HAVING the true Square of any Timber-log in Inches, and the length thereof in feet, to know the content thereof in feet.

Take the number answering to the Square of Inches out of the Table, and multiply it by the length in feet.

Thus, a piece of Timber 18 Inches square, and 25 foot long.

The number answering to 18 Inches
square, is 2,250
which multiplied by 25 the length 25

$$\begin{array}{r} 11 \overline{) 250} \\ 45 \overline{) 00} \end{array}$$

Yields

56,250

Viz. 56 feet, and one quarter.

Here may seem some difficulty in finding the product of these mixt numbers, but you may see how to do it in page 53.

If you think this somewhat too tedious, you may leave out the last figures of the number, and work onely by 100 parts of a foot.

Now for the more readinesse, and also for the more exactnesse, you may project this Table of Timber-measure into a line upon your Ruler, in such a manner, that it shall serve better then the former Table,

But

But because the foresaid Table falls out in odde parts, which will be very troublesome to divide ; therefore it will be worth the while, to finde how many inches and parts any certain number of the parts of this line will require, which you may thus finde, and so enlarge the following Table, as you please.

Take the number 144 for 1000 parts, or 12 inches, as before, and multiply it by the parts you desire, and extract the Square Root out of the product: note, if it fall not out in equall parts, adde some ciphers to it, that so you may have the fraction in a thousand parts at least.

Thus

Thus for

| <i>parts</i> | <i>Square</i> | <i>Roots</i> |
|--------------|---------------|--------------|
| 0001 | 000144 | 0.379 |
| 0010 | 00144 | 1.200 |
| 0100 | 0144 | 3.795 |
| 1000 | 144 | 12.000 |

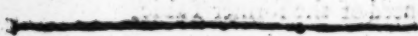
Having thus made the Table, for making use of this already made, divide your Ruler first into Inches, and then each inch into 10 or 100 parts, and out of the Table you shall readily set of the parts of the line of measure; which being done handsomely and truly, will shew you the quantity of Timber in one foot length, of any number of Inches square, to the tenth or 100 part of an inch, and to the 1000th. part of a foot; so that having the line, you will have no need of the former Table.

This you may see more plainly how to perform, by the Gauging-line, which

(192)

I have drawn after this sort in its following place.

You may also draw the like line for Board-measure, onely by dividing each foot of your Ruler into 100, or 1000 parts.



Parts of the line of Timber-measure.

1
2
3

*A Table for the division of
the Line of Timber-
measure.*

| <i>Parts of the line of Timber-measure.</i> | In.pts. | | In.pts. | | In.pts. |
|---|---------|-------|---------|--------|---------|
| | 1 | 0,379 | 400 | 7,589 | 2500 |
| | 2 | 0,537 | 500 | 8,486 | 2600 |
| | 3 | 0,657 | 600 | 9,295 | 2700 |
| | 4 | 0,759 | 700 | 10,040 | 2800 |
| | 5 | 0,849 | 800 | 10,734 | 2900 |
| | 6 | 0,929 | 900 | 11,384 | 3000 |
| | 7 | 1,004 | 1000 | 12,000 | 3500 |
| | 8 | 1,073 | 1100 | 12,586 | 4000 |
| | 9 | 1,138 | 1200 | 13,145 | 4500 |
| | 10 | 1,200 | 1300 | 13,682 | 5000 |
| | 20 | 1,697 | 1400 | 14,198 | 5500 |
| | 30 | 2,078 | 1500 | 14,697 | 6000 |
| | 40 | 2,400 | 1600 | 15,179 | 6500 |
| | 50 | 2,683 | 1700 | 15,646 | 7000 |
| | 60 | 2,939 | 1800 | 16,100 | 7500 |
| | 70 | 3,175 | 1900 | 16,541 | 8000 |
| | 80 | 3,394 | 2000 | 16,971 | 8500 |
| | 90 | 3,600 | 2100 | 17,390 | 9000 |
| | 100 | 3,795 | 2200 | 17,799 | 9500 |
| | 200 | 5,367 | 2300 | 18,199 | 1000 |
| | 300 | 6,573 | 2400 | 18,590 | |

Now the use of this line being set upon your Ruler, will be very ready. For measuring the side of any square piece of Timber, you need never look how many Inches square it is, but the line it self, counting from the right end thereof, will give you the number, which you must multiply by the length of the piece of Timber, measured in feet and hundred parts.

Thus, as before, finde the side of a piece of Timber to reach to 2.150 in this line, and the length thereof to be 25 foot, the content thereof is 56 feet and 250 parts, or a quarter of a foot.



To measure Timber, which is not perfectly squared.

THough this be the common forme of Timber, after the first hewing, yet many times by some accident, or by after-sawing, there are many pieces of Timber thicker one way then another.

Now in this case it is usuall with some men to adde the broader and the narrower sides together, and so to take the half thereof for the true Square.

To But this must not alwayes be so slighted over, lest you run into great error. For though the error will be little, when the difference between the sides is not much; yet the greater that difference is, the greater will be the error.

For Example.

Let the sides of the Timber be 10 Inches, and 12 Inches; these two added together, make 22, the half whereof is 11; but yet this is not the true square thereof: for 11 times 11 is 121; whereas 10 times 12 is 120, which is the true Area of the said square. Yet here the difference being but one inch in 120, may seem somewhat tolerable.

But now let the sides of the Timber be 12 inches one way, and 6 the other way; these two added together, make 18, and the half thereof is 9. Now the square of 9 is 81; but the true square of the Timber is found by multiplying 12 by 6. so the area is 72. Here you see the error will be intolerable. And it is so much the more unconscionable, because it gives the buyer so much lessie then his due.

Mr. *Bedwell* hath framed a very ingenious Ruler for this purpose, if it be carefully made.

But the best way is to multiply the two sides, and so finde the true area of the

the plain ; and then by this Table,
which you may also project into a line
upon your Ruler, finde out the propor-
tion of a foot, and so multiply it by
the length in feet, as before.

Likewise , if your Timber-log have
any other then a square forme; whether
it be regular or irregular, you must
finde the area thereof, and so you shall
have the quantity of one foot length
thereof by this Table.

K 3

A



(198)

A Table shewing the solid content of one foot length, of any piece of Timber, according to the Area or superficial content, taken at the end thereof.

| feet pts. | | | feet pts. | | |
|-----------|---|-----|-----------|-----|-----|
| 1 | 0 | 007 | 200 | 1 | 389 |
| 2 | 0 | 014 | 300 | 2 | 083 |
| 3 | 0 | 021 | 400 | 2 | 778 |
| 4 | 0 | 028 | 500 | 3 | 474 |
| 5 | 0 | 038 | 600 | 4 | 167 |
| 6 | 0 | 042 | 700 | 4 | 861 |
| 7 | 0 | 049 | 800 | 5 | 556 |
| 8 | 0 | 056 | 900 | 6 | 250 |
| 9 | 0 | 062 | 1000 | 6 | 944 |
| 10 | 0 | 069 | 2000 | 13 | 888 |
| 20 | 0 | 139 | 3000 | 20 | 833 |
| 30 | 0 | 208 | 4000 | 27 | 778 |
| 40 | 0 | 278 | 5000 | 34 | 722 |
| 50 | 0 | 347 | 6000 | 41 | 666 |
| 60 | 0 | 417 | 7000 | 48 | 611 |
| 70 | 0 | 486 | 8000 | 55 | 555 |
| 80 | 0 | 556 | 9000 | 62 | 500 |
| 90 | 0 | 625 | 10000 | 69 | 444 |
| 100 | 0 | 694 | 20000 | 138 | 888 |

The Inches of the Area.



To measure round Timber.

THe way commonly used is to gird these round pieces of Timber about with a string, and so doubling the string, to take the fourth part thereof for the true square.

As for Example.

If the compasse of the Tree be 48 Inches, they reckon 12 Inches for the true square thereof.

But this is very false,, as you may see by this little Circle, casting it up after the common way.

The Diameter of the Circle is 14 inches, the compasse is 44 inches. This is, according to that rule,

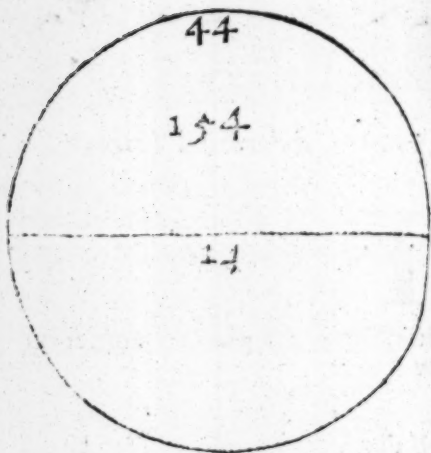
As 7, to 22:

So the Diameter, to the Compasse.

K. 4

Then

(200)



Then for the content of this Circle, if you multiply half of the compasse, which is 22 ; by half of the diameter, which is 7 ; the true content will be 154 Inches.

Whereas if you had taken a quarter of the compasse, which is 11, for the square root of the circle ; this multiplied in it self, would yield but 121 inches ; which wants 33 inches of the true

true content : so there would be lost above a fifth part thereof. And thus there will be in measuring any other round Timber, by this rule, of what compasse soever it be, somewhat above a fifth part thereof will be given away.

All that can be said in the defence of this custome, is that though most Trees grow round, yet they must be hewed square, before they be fit Timber for any use almost; and so this advantage in the measure may very well be allowed, for that which goes to waste in the chips being good for nothing but the fire.

And in my minde, though Carpenters think not of this excuse, but take this rule for an absolute truth; yet this, I suppose, was the first occasion of this Rule, which may stand with some good reason. For if you consider the former circle, the compasse being 44 inches; the inscribed square will be scarce 10 inches, as appears by this proportion, which you may use for any other;

As 1, to 0,225 ;
 So the compasse 44 inches,
 To the inscribed square 9 inches, 900
 parts.

This is the greatest Square which such a round piece of Timber can be hewen to, and this multiplied in it self, yields 98 inches, 010 parts for the Area thereof. Now if you adde these two Areas together, viz.

| | inches |
|----------------------------------|--------|
| The Area of the inscribed square | 98 |
| And the full Area of the Circle | 154 |
| The sum thereof will be | 252 |
| And the middle or mean thereof | 126 |
| And the content by this rule was | 121 |

So that this gives an indifferent allowance between the buyer and seller; it being thus measured, neither to the full extent, because of the waste: neither according to the exact square thereof, because that which is cut off, though it be not so good as the other, yet it is good for somewhat.

But

But yet for all this, it is fit that the true content of the Timber, let it be in what forme soever, should be exactly known, and this is that which the measurer ought to perform. As for the goodness of the Timber, and the waste thereof, men must consider that in the price of the Foot or Tun; and so I believe they do: and therefore being allowed for the waste in the price thereof, there is no reason but they should pay for the full measure which they have, and not have any allowance in that also.

But many desire to buy Timber round, and will give as great a price for it as for square Timber, because of the allowance which they take to themselves in the measure. For first, they compass the Tree, and divide the line into three parts, casting away one third part for the waste of the bark and rinde: then the other two parts of the line they divide into four parts, and so take one quarter thereof for the true square. Thus in the foresaid Tree, whose compass was 48 Inches, a third thereof:

whereof, 16 inches allowed for waste, there remains but 32, and then a quarter of this is but 8 inches, whereas you see before, this Tree will make a perfect square of ~~about~~ ^{above} 10 inches, and all the other which is cut off will not be quite lost; so that they will have at least the one half of the Timber by this way of allowance and false measure.

Therefore by the way you may take notice of the different value which there ought to be, between good cleer timber perfect'y squared, and that which is not. The difference between the content of the circle, and the square which may be wrought out of it, as you may see before, is above one third part.

But because all this, especially in great trees, need not go to chips & waste; you may well in such large round timber, reckon a fifth part for waste, and so the price of five feet thereof to be equall to four feet of square Timber; and in lesler pieces you may reckon a quarter for the waste, and so four feet thereof to be worth as much as three, and so let it be measured to the full content thereof.

There;

Therefore now I shall, as briefly as I can, shew you the readiest wayes to finde the true content of any round piece of Timber.

And you may finde this out either by the Diameter, or by the circumference.

If you work by the Diameter, the rule is this;

*As 1, to 0,7854;
So the square of the Diameter,
To the content of the circle.*

If you work by the compasse of the circle, which I think will be best and most ready to be found, then take this rule :

*As 1, to 0,0796;
So the square of the circumference,
To the content of the Circle.*

And thus having found the content or Area of the circle, you may by the Table (page 198) finde how many feet are in one foot length thereof.

Or you may work this somewhat shorter, thus ;

As

As 1; to 0,00055262;
 So the square of the circumference,
 To the proportion of one foot in length
 thereof, to the measure in feet.

And according to this rule, I have
 framed this Table; to help those that are
 not so ready in these operations, and
 so might fall into some mistake. By
 which taking only the compasse of the
 timber, they may know the quantity of
 the length of a foot thereof.

A Ta
 of ro
 of e

inches of the compasse.

A Table, which by the compass of any piece of round Timber shewes the true measure of one foot in the length thereof.

| Inches of the compass. | | | | | |
|------------------------|---------|----|---------|-----|---------|
| C. | f. pts. | C. | f. pts. | C. | f. pts. |
| 10 | 0.055 | 40 | 0.537 | 70 | 2.707 |
| 11 | 0.066 | 41 | 0.929 | 71 | 2.785 |
| 12 | 0.079 | 42 | 0.974 | 72 | 2.864 |
| 13 | 0.093 | 43 | 1.021 | 73 | 2.945 |
| 14 | 0.108 | 44 | 1.070 | 74 | 3.026 |
| 15 | 0.124 | 45 | 1.119 | 75 | 3.108 |
| 16 | 0.141 | 46 | 1.169 | 76 | 3.191 |
| 17 | 0.159 | 47 | 1.220 | 77 | 3.276 |
| 18 | 0.179 | 48 | 1.273 | 78 | 3.362 |
| 19 | 0.200 | 49 | 1.327 | 79 | 3.449 |
| 20 | 0.221 | 50 | 1.381 | 80 | 3.537 |
| 21 | 0.243 | 51 | 1.437 | 81 | 3.625 |
| 22 | 0.267 | 52 | 1.496 | 82 | 3.715 |
| 23 | 0.291 | 53 | 1.552 | 83 | 3.807 |
| 24 | 0.318 | 54 | 1.612 | 84 | 3.896 |
| 25 | 0.343 | 55 | 1.671 | 85 | 3.990 |
| 26 | 0.374 | 56 | 1.732 | 86 | 4.084 |
| 27 | 0.403 | 57 | 1.795 | 87 | 4.183 |
| 28 | 0.433 | 58 | 1.860 | 88 | 4.279 |
| 29 | 0.455 | 59 | 1.923 | 89 | 4.377 |
| 30 | 0.497 | 60 | 1.988 | 90 | 4.475 |
| 31 | 0.531 | 61 | 2.056 | 91 | 4.576 |
| 32 | 0.566 | 62 | 2.124 | 92 | 4.677 |
| 33 | 0.602 | 63 | 2.193 | 93 | 4.780 |
| 34 | 0.639 | 64 | 2.264 | 94 | 4.882 |
| 35 | 0.677 | 65 | 2.335 | 95 | 4.987 |
| 36 | 0.716 | 66 | 2.407 | 96 | 5.093 |
| 37 | 0.756 | 67 | 2.480 | 97 | 5.200 |
| 38 | 0.798 | 68 | 2.555 | 98 | 5.307 |
| 39 | 0.840 | 69 | 2.631 | 100 | 5.526 |



*The demonstration of this
Table.*

THe use of this Table is plain and ready; for having the compasse of the Timber in inches, finde it out in this Table, and so you shall there finde the true quantity of one foot length thereof, vvhich if you multiply by the number of feet, vvhich the Timber hath in length, it shewes the true content thereof.

Thus, a piece of Timber 48 inches in compasse, and 20 foot long is 25 feet, 460 parts.

| | |
|---------------------------------|---------|
| For 48 inches in compasse gives | 1:273 |
| which multiplied by 20 | 20 |
| | <hr/> |
| Yields | 25.460. |
| | Which |

Which is 25 foot, and almost an half;
 whereas reckoning 12 inches, which
 is the quarter of the compasse, to be the
 square, it would yield but 20 feet, and
 so there would be five feet and almost
 an half lost in this piece of Timber.

This Table may be also drawvn into
 a line or two upon a Ruler, but I
 want time to shew how, therefore I shall
 leave it to the Artist himself, who shall
 have most occasion for it.

To



To measure Tapering Timber.

Tapering timber, according as the base thereof is either round, or right lined, is either a Cone, or a Pyramide, or a segment of one of these.

If it be a compleat Cone or Pyramide having but one base, and ending in a sharp point, then you must multiply the Area of the base by a third part of the heighth.

Thus, suppose the four-square Pyramide ABC to be 45 foot long, and 18 inches square at the base. You shall finde by the Table of Timber-measure (page 185) that 18 inches square yield for the content of one foot length, 2 feet, 250 parts: this multiplied by 15 feet, which is one third of the length thereof, makes 33 feet, 750 parts.

Thus.

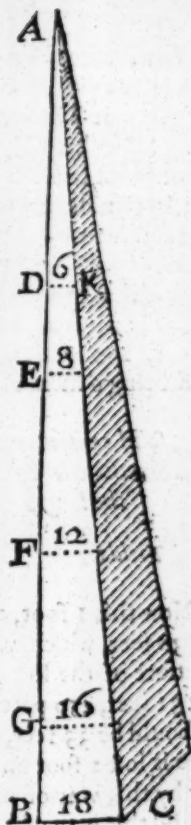
(211)

Thus the whole
Pyramide is easily
measured.

But now suppose
there were onely a
part thereof to be
measured, viz. D
K B C, being 30
foot long from D to
B, being six inches
square at D, and
18 inches square at
B, as before.

The common
way used herein is
to finde out the
square in the very
middest thereof,
and to work by
that, as if it were
the true square, but
this way, though it
be true in flat, as
boards, or land, yet
here it yields al-
ways somewhat
lesse.

For



For, according to this rule, the square in midst at F is 12 inches, and so the piece of Timber should be 30 foot long. But this is not the truth.

For proof hereof, these two parts of the Pyramide A D and D B must, as you saw before, make up 33 feet, 750 parts.

But the top of the Pyramide A D, measured by the true rule, makes but 1 foot, 250 parts. For the base thereof D K being 6 inches square,

| | | |
|----------------------------------|-------|-------|
| The solid content of one foot is | 0.250 | |
| which multiplied by a third of | } | 5.000 |
| the length | | |
| | <hr/> | |
| Yields | | 1.250 |

Now this 1 foot, 250 parts added to the 30 feet, which was thought to be the measure of the lower part D B, makes but 31 feet, 250 parts, whereas you see it should be 33 feet, 750 parts. So that here is lost 2 foot and an half of Timber by this way of measuring.

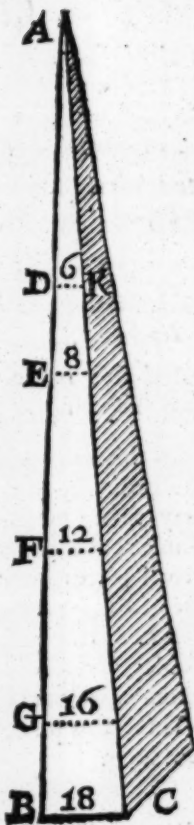
And this way of *Ramus*, to measure both

(213)

both the parts of the Pyramis, and then to substract one from the other, seem to me more plain and easie then that prescribed by Master *Oughtred* and Mr. *Wingate*, for the measuring of such Tapering-timber.

Now if you would know how to finde the length of that part of the Pyramis which is wanting: Observe the difference between the two ends, which in this example is 12 inches, and this proportion will hold well enough in such kinde of Pyramids.

As



As the difference of the two ends 12 inch.
To the length between them 30 feet
So the greater base 18 inch.
To the whole length 45 feet

And thus the whole Pyramis being found,
as before to be 33 feet, 750 parts

And the top thereof to }
be subtracted } 1 foot, 250 parts
There remains for the }
other part. } 32 feet 500 parts

And this is the true quantity of the
 said Tapering piece of Timber.

If this way seem too troublesome to
 the common sort of measurers, they
 may then measure such pieces of
 Timber, as if they were two or three se-
 verall pieces; and thus measuring in
 the midst of every ten feet length, they
 will finde the work very easie by these
 Tables, and much more exact then their
 common way at once measuring.

Thus, this piece of Timber being 30
 foot long.

The square thereof at G, which is in
 the midst of the first 10 feet is 16 inches,

to which there answers in the Table of Timber-measure 1.778, which multiplied by 10, by adding a cipher, and setting the (.) a figure forwarder, *F.parts* makes.

17.780

The like at F for the next 10 } is 10.000
feet, being 12 inches square }

The like at E for the last 10 } 4.440
feet, being 8 inches square }

The sum of all three is 32.220

Which lacks onely 00.280

Of the true content 32.500

As I have shewed you how to do with this square Tapering-Timber, so you may by the round Tapering-Timber, working by the Table of round Timber (page 207.) Also you may see how to measure any other many-sided Pyramis. But I have been already too long in these things: onely the usefulness hereof (all Timber being almost of this fashion) and the errors of many herein, and the little which hath been written hereof by others, hath made me the more large.

Note,

Note, if any of the numbers of these Tables be too little for your occasion, you may work by the half thereof.

Thus, suppose a piece of Timber or Stone to be 48 inches square. This Table reacheth but to 36 inches square; therefore take the half of your number, which will be 24, and this in the Table gives you 4 feet, 000 parts; and this is the quantitie of one quarter of a foot length thereof; so that if you multiply it by 4, it makes 16 feet, which is the content of one foot length of that piece of Timber: and so work, as before.



T

feet
quar
of.

Th
nece

F
gula
regu

S
of
part

F



Of Gauging.

THere is not much difference (in the thing it self) from measuring of other solids; onely they are measured by feet and inches; these by gallons, quarts, and pintes, or tenth parts thereof.

There are two things herein chiefly necessary, yet both much controverted.

First, these Vessels being all of irregular formes, how to reduce them to a regular proportion.

Secondly, to finde the true quantity of the Gallon in cubick Inches, or parts of a foot.

For the first of these, the best way is
 L this,

this, according to Mr. *Oughtred*.

Measure the Diameter of the Vessel both at the bung, and at the head thereof; and by the Diameters finde out the Area of the circles. Then take two thirds of the Circle at the bung, and one third of the circle of the head, and adde them together: and lastly, multiply the sum thereof by the length of the vessel.

For the second thing, the content of our English Gallon, which is the measure of all these vessels. This is most commonly received, that a Wine-gallon contains 231 cubick inches: yet Mr. *Wybard* pleads very strongly, that it is somewhat lesse, making the Wine-gallon to be 225 inches. But the difference being so small, the error will not be much; and therefore, till the exact truth be more certainly known, I shall, with the most, follow the first, counting it better to allow rather a little over-measure, then any thing under.

And

And so according to these rules and
 observations I have Calculated this
 Table, and framed this Gauging-line;
 the use whereof is one and the same, and
 they will serve to help each other.

L 2

A

A Table for the Gauging of wine-vessels

| Inches of the Diameter | Head | Bung | | Head | Bung |
|------------------------|---------|-------|----|-------|-------|
| | D G.pts | G.pts | D | G.pts | G.pts |
| 01 | 0.001 | 0.002 | 31 | 1.090 | 2.180 |
| 02 | 0.004 | 0.009 | 32 | 1.160 | 2.321 |
| 03 | 0.010 | 0.020 | 33 | 1.234 | 2.468 |
| 04 | 0.018 | 0.036 | 34 | 1.310 | 2.620 |
| 05 | 0.028 | 0.056 | 35 | 1.388 | 2.776 |
| 06 | 0.041 | 0.081 | 36 | 1.468 | 2.936 |
| 07 | 0.055 | 0.111 | 37 | 1.551 | 3.102 |
| 08 | 0.072 | 0.145 | 38 | 1.636 | 3.272 |
| 09 | 0.092 | 0.183 | 39 | 1.723 | 3.447 |
| 10 | 0.113 | 0.226 | 40 | 1.813 | 3.625 |
| 11 | 0.137 | 0.274 | 41 | 1.904 | 3.809 |
| 12 | 0.163 | 0.326 | 42 | 2.000 | 4.000 |
| 13 | 0.191 | 0.385 | 43 | 2.095 | 4.190 |
| 14 | 0.222 | 0.444 | 44 | 2.194 | 4.388 |
| 15 | 0.255 | 0.510 | 45 | 2.294 | 4.588 |
| 16 | 0.290 | 0.580 | 46 | 2.396 | 4.795 |
| 17 | 0.328 | 0.557 | 47 | 2.503 | 5.007 |
| 18 | 0.367 | 0.734 | 48 | 2.610 | 5.220 |
| 19 | 0.409 | 0.818 | 49 | 2.721 | 5.442 |
| 20 | 0.453 | 0.906 | 50 | 2.832 | 5.665 |
| 21 | 0.500 | 1.000 | 51 | 2.947 | 5.895 |
| 22 | 0.548 | 1.097 | 52 | 3.064 | 6.127 |
| 23 | 0.599 | 1.199 | 53 | 3.275 | 6.550 |
| 24 | 0.652 | 1.305 | 54 | 3.304 | 6.609 |
| 25 | 0.708 | 1.416 | 55 | 3.428 | 6.856 |
| 26 | 0.766 | 1.532 | 56 | 3.554 | 7.108 |
| 27 | 0.826 | 1.652 | 57 | 3.682 | 7.364 |
| 28 | 0.888 | 1.777 | 58 | 3.812 | 7.624 |
| 29 | 0.953 | 1.906 | 59 | 3.945 | 7.890 |
| 30 | 1.020 | 2.040 | 60 | 4.079 | 8.157 |

| | | | | | | | | |
|----|-------|-------|-----|-------|-------|-------|-------|-------|
| | 1 | | 2 | | 3 | 10 | | 4 |
| 5 | | | | | | | | |
| 9 | | | 100 | | | | | |
| 13 | | | 200 | | | | | |
| 17 | | | | | | 400 | | |
| 21 | | | 500 | | | | 600 | |
| 25 | | 700 | | | | 800 | | |
| 29 | | | | 1.000 | | | 1.100 | |
| 33 | 1.200 | | | | 1.300 | | 1.400 | |
| 37 | 1.500 | | | 1.600 | | 1.700 | | 1.800 |
| 41 | | 1.900 | | | 2.000 | | 2.100 | |
| 45 | | 2.300 | | | 2.400 | | 2.500 | |

15
 16
 17
 18
 19
 20
 21
 22
 23
 24
 25
 26
 27
 28
 29
 30
 31
 32
 33
 34
 35
 36
 37
 38
 39
 40
 41
 42
 43
 44
 45
 46
 47
 48
 49
 50
 51
 52
 53
 54
 55
 56
 57
 58
 59
 60
 61
 62
 63
 64
 65
 66
 67
 68
 69
 70
 71
 72
 73
 74
 75
 76
 77
 78
 79
 80
 81
 82
 83
 84
 85
 86
 87
 88
 89
 90
 91
 92
 93
 94
 95
 96
 97
 98
 99
 100



The demonstration of the Table and Gauging-line.

THIS Table and Gauging-line have one and the same ground, *viz.* this received Theoreme, that one third of the Area of the Circle at the head; and two thirds of the Area at the circle at the bung added together, and multiplied by the length of the Vessel, gives the true content thereof.

But now it being troublesome to finde this out at length; *viz.* first the Area of the Circles, and then the content of the Vessel in cubick inches; and lastly, to reduce this into Gallons: therefore the Table shews you one third and two thirds of the Area of any circle ready cast up in the parts of a Gallon for any Diameter to 60 inches, where-

whereby so much of the labour will be saved.

If you desire a more particular account of the manner of calculating this Table; it is grounded upon these Theoremes.

First,

As 1, to 0,7854;

So the Square of the Diameter 1 inch,
To the content of the Circle. 0,7854

Secondly,

As 231, the square inches in one wine-gallon,

To 1 gallon, or parts 1,000

So the said content of the circle, 0,7854

To the parts of a gallon 0,0034

So that the Area of a Circle having one inch for its Diameter, is the 0,0034 part of a gallon.

Now a third part of this number is 0,001133. This number therefore 1133 being multip'ied by the square of any Circles diameter taken by inch-measure, and set down according to this Table, gives the third part of the con-

sent thereof in Wine-measure, which is the parts to be taken of the circle at the head of the Cask. And this same number doubled is two thirds of the like circle, being the parts to be taken at the bung of the Cask. Thus much for the making of the Table, which you may increase as you please to any parts of the inch.

Of the Gauging-line.

Now because the Table is cast up only to whole Inches, though the proportionall difference for any part of an inch may be found easily thereby: yet since the number of these Inches must first be measured by some rod or other in the vessel it self; you may set this line so upon your rod, that without having respect to the inch-measure, it will shew you the true Area of the Circle in gallon-measure, by the depth of the Diameter.

This line therefore, though the figure is but four inches long, yet the twelve
lines

lines therein are supposed to be one continued line, being in all four feet, or 48 inches long; which is as long as most vessels require; but you may enlarge it as you please.

This line also shewes onely a third part of the Area of the Circle, whose Diameter is measured thereby; so it is properly to be used onely in measuring the Diameters at the heads. But if you double the number hereof; so you shall have two thirds of the Diameter, and so you may use it for the Diameters at the bung, or else make another line on purpose for them, which may be made by this; each part divided into two, and marked with the double of these numbers.

L 5

of



Of the use of this Table and Line.

THe use of this Table and Line, in effect is all one, onely the Table at first may be somewhat more plain, and the line afterwards will be more ready for use.

To finde the content of any Vessel in wine-measure.

First, measure the Diameter at the Head, and finde the number in the Table belonging to it. Then measure the Diameter of the Bung, and finde the number belonging to that. Then adde these two together, and multiply the sum thereof by the Inches of the Vessels length, measured in the inside of the Vessel from head to head.

Thus, according to Master *Oughtreds* example in the Circles of proportion:
suppose

Suppose a Vessel having the Diameter at the Head be 18 inches, the Diameter at the Bung 32 inches, and the length thereof 40 inches; the content thereof is thus found.

| <i>The Table shewes</i> | <i>G. parts</i> |
|--|-----------------|
| <i>For 18 inches at the Head</i> | 0.367 |
| <i>For 32 inches at the Bung</i> | 2.321 |
| <hr/> | |
| <i>These two added together, make</i> | 2.688 |
| <i>which multiplied by the length, }</i> | |
| <i>being 40 inches</i> | 40 |
| <hr/> | |
| <i>Makes.</i> | 107.520 |

According to his operation it should be 107 gallons, 530 parts, which difference is of no moment.

The like you must do, if you use the line; onely doubling the number for the Head, if you have not a line on purpose.

Thus, let the vessel be the same, the
line shewes

| | |
|-------------------------------|----------|
| | G. parts |
| For 18 inches at the head | 0. 367. |
| For 32 inches, which must be | 1. 160.5 |
| doubled, because at the bung, | 1. 160.5 |

| | |
|-----------------------------|--------|
| Yields, as before, | 2. 688 |
| And therefore multiplied by | 40 |

| | |
|--------------------|----------|
| Yields, as before, | 107. 520 |
|--------------------|----------|

And thus working by this line, you may readily finde these numbers to the 1000 part of a Gallon for each 100 part of an Inch; which is as exact I think as need be.

And thus this troublesome businesse is very easily performed, without any Equation of Diameters, or Reduction of measures; which with some confidence I dare present to the candid censure of the better learned, and to the practice of others.

But though this operation by this line is performed easily, yet the making of this line, will at the first be some trouble, unlesse you know how to finde

OUT:

out some certain equall numbers thereof, viz. every 5 or 10; otherwise, you will never divide the line either truly, or handsomely by the former Table.

Now to finde out these parts, you may remember that 1133, or more exactly, the third part of 34 was the number by which the Table was framed. So that,

As 34, to 3; So 1, to 882352941.

This number, or six of the first figures thereof, you must multiply by the parts you desire, and then extract the Square root (as before in the line of Timber-measure) so you may inlarge this Table, and draw this Gauging-line very exactly thereby, having an Inch-line upon your Rule, divided into decimal parts.

| Parts | Squares | Roots | In. parts |
|-------|-----------|-------|-----------|
| 1 | 882352 | 939 | 0.939 |
| 10 | 8823529 | 2975 | 2.975 |
| 100 | 88235294 | 9393 | 9.393 |
| 1000 | 882352941 | 29704 | 29.704 |

A Table to divide the Gauging-line for
wine-measure.

| line | In. pts. | line | In. pts. | line | In. pts. |
|------|----------|------|----------|------|----------|
| 1 | 0,939 | 160 | 11,882 | 400 | 18,787 |
| 2 | 1,328 | 170 | 12,247 | 410 | 19,020 |
| 3 | 1,627 | 180 | 12,602 | 420 | 19,250 |
| 4 | 1,879 | 190 | 12,948 | 430 | 19,478 |
| 5 | 2,100 | 200 | 13,284 | 440 | 19,703 |
| 6 | 2,301 | 210 | 13,612 | 450 | 19,926 |
| 7 | 2,485 | 220 | 13,933 | 460 | 20,146 |
| 8 | 2,657 | 230 | 14,246 | 470 | 20,365 |
| 9 | 2,818 | 240 | 14,552 | 480 | 20,580 |
| 10 | 2,970 | 250 | 14,852 | 490 | 20,793 |
| 20 | 4,201 | 260 | 15,146 | 500 | 21,004 |
| 30 | 5,145 | 270 | 15,435 | 510 | 21,214 |
| 40 | 5,941 | 280 | 15,718 | 520 | 21,420 |
| 50 | 6,642 | 290 | 15,997 | 530 | 21,625 |
| 60 | 7,276 | 300 | 16,270 | 540 | 21,826 |
| 70 | 7,859 | 310 | 16,539 | 550 | 22,028 |
| 80 | 8,401 | 320 | 16,803 | 560 | 22,228 |
| 90 | 8,911 | 330 | 17,064 | 570 | 22,427 |
| 100 | 9,393 | 340 | 17,320 | 580 | 22,621 |
| 110 | 9,852 | 350 | 17,573 | 590 | 22,815 |
| 120 | 10,287 | 360 | 17,823 | 600 | 23,008 |
| 130 | 10,710 | 370 | 18,069 | 610 | 23,200 |
| 140 | 11,114 | 380 | 18,311 | 620 | 23,390 |
| 150 | 11,504 | 390 | 18,550 | 630 | 23,578 |

Parts of the Gauging-line.

*A Table to divide the Gauging-line for
wine-measure.*

| <i>line</i> | <i>In. pts.</i> | <i>line</i> | <i>In. pts.</i> | <i>line</i> | <i>In. pts.</i> |
|-------------|-----------------|-------------|-----------------|-------------|-----------------|
| 640 | 23,763 | 880 | 27,865 | 2200 | 44,058 |
| 650 | 23,948 | 890 | 28,022 | 2300 | 45,049 |
| 660 | 24,131 | 900 | 28,180 | 2400 | 46,019 |
| 670 | 24,315 | 910 | 28,336 | 2500 | 46,966 |
| 680 | 24,495 | 920 | 28,491 | 2600 | 47,898 |
| 690 | 24,674 | 930 | 28,646 | 2700 | 48,809 |
| 700 | 24,852 | 940 | 28,800 | 2800 | 49,705 |
| 710 | 25,029 | 950 | 28,954 | 2900 | 50,585 |
| 720 | 25,205 | 960 | 29,105 | 3000 | 51,449 |
| 730 | 25,382 | 970 | 29,254 | 3100 | 52,300 |
| 740 | 25,555 | 980 | 29,407 | 3200 | 53,137 |
| 750 | 25,725 | 990 | 29,555 | 3300 | 53,961 |
| 760 | 25,895 | 1000 | 29,704 | 3400 | 54,777 |
| 770 | 26,066 | 1100 | 31,153 | 3500 | 55,572 |
| 780 | 26,234 | 1200 | 32,530 | 3600 | 56,360 |
| 790 | 26,401 | 1300 | 33,867 | 3700 | 57,137 |
| 800 | 26,569 | 1400 | 35,148 | 3800 | 57,905 |
| 810 | 26,734 | 1500 | 36,380 | 3900 | 58,662 |
| 820 | 26,898 | 1600 | 37,575 | 4000 | 59,409 |
| 830 | 27,062 | 1700 | 38,730 | | |
| 840 | 27,225 | 1800 | 39,853 | | |
| 850 | 27,386 | 1900 | 40,945 | | |
| 860 | 27,548 | 2000 | 42,008 | | |
| 870 | 27,704 | 2100 | 43,045 | | |



*Of the measuring of Ale or Beer-
Vessels.*

TO measure Ale or Beer-Vessels, your best way will be to make the like Tables and Line as for Wine-measure; and so the practice will be all one.

But first, you must know the true content of the Ale-gallon, concerning which there are divers reports and accounts. Some ancient Artists, *viz.* Mr. *Goodwyn*, and Mr. *Reynolds* affirme, that the proportion between the Ale-gallon and the Wine-gallon is as 4 to 5; the Wine-gallon being 231 inches, and the Ale-gallon $283\frac{3}{4}$. This, by Mr. *Oughtred* is much lessened, being supposed by him to be but 272 inches, and $\frac{1}{4}$; and Mr. *Wyband* lessens it somewhat more, making it at the most but 270 inches.

ches. But so far as I can learn, there are three sorts of measures in use. The measure for Wine being 231 inches; the measure for dry things, as Corn, &c. being about 272; and the measure for Beer and Ale being 288 inches and $\frac{3}{4}$.

The proportion between these three Gallons is 28, 33, 35; but having little to do with the middle Gallon, I shall take the Ale-gallon to be 288 inches and $\frac{3}{4}$, and conclude the proportion between the Wine and Ale-gallon to be exactly as 4 to 5.

Now therefore if you have much occasion to gauge Beer-vessels, for your readie use, you may thus make the like Tables and Line as you did for Wine-measure:

| | |
|---|---------|
| <i>As 288$\frac{3}{4}$, the inches in one Ale-gallon,</i> | |
| <i>To the parts of a Gallon</i> | 1,00000 |
| <i>So the content of the Circle, } having one inch Diameter }</i> | 0,7854 |
| <i>To the like parts of a Gallon.</i> | 0,00272 |

Now a third part of this being 90 $\frac{21}{3}$ or 90666 multiplied by the square of
the

the diameter of any Circle taken in Inch-measure, gives a third part of the content thereof, which is the measure to be used for the head of the Vessel; and this doubled, shewes the number to be used for two thirds of the Diameter at the Bunge; and thus you may make a Table for Beer-measure to as many inches and parts of Inches as you please, as you may see before in the Table of Wine-measure.

Again, if you would draw this into a line, as you did the former; work thus,

As 272; to 3; so 1, to 11029411765.

This number, or the seven first figures thereof multiplied by the parts of your line, and the square root extracted out of the product will give you the length of the Gauge-line in Inches & parts, as before, in that Table for the other line.

| <i>Parts</i> | <i>Squares</i> | <i>Roots</i> | <i>In. parts</i> |
|--------------|----------------|--------------|------------------|
| 1 | 1102941 | 1050 | 1.050 |
| 10 | 11029411 | 3321 | 3.321 |
| 100 | 110294117 | 10502 | 10.502 |
| 1000 | 1102941176 | 33210 | 33.210 |

But

But the Reduction being so easie between four and five, I shall crave leave to save this labour of calculating these Tables, having thus shewn you how to do them, if you have occasion.

Lastly, there is one thing in this buisnesse of Gauging, which you must be very carefull of; and that is, of taking the true length of the Vessel between the inside of the two heads. This must be very exactly done; for since you must multiply your other summes by this, a small error herein may cause you to give the content a Gallon more or lesse then you ought. But how to do this, I hope, is better known to the Practitioners hereof then I can declare with many words. And therefore having spoken what I think will be more new and useful to them, I shall here end these Artificiall Experiments, and proceed to some more common conclusions, which may be of more general use to all men.

af.



Of wet measures.

One Pound Troy is a Wine-pinte.
 2 Pintes are a Quart.
 8 Pintes are a Gallon.
 63 Gallons are a Hoghead.
 84 Gallons are a Puntion.
 126 Gallons are a Pipe or But.
 252 Gallons are a Tun.

Of Ale and Sope.

8 Gallons make a Firkin.
 2 Firkins, a half Barrel.
 4 Firkins, a Barrel.

For Beer.

9 Gallons make a Firkin.
 18 Gallons are a Kilderkin.
 36 Gallons are a Barrel.

But the Ale and Beer-gallon is bigger
 then the Wine-gallon, the proportion
 between them being exactly, as 4
 to 5.

Dry

Dry measures.

1 Gallon is half a peck.

4 Pecks are a Bushel.

8 Bushels are a Quarter.

Of Fuell.

36 Bushels are a Chalderon of Coals.

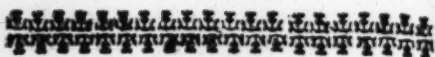
4 Bushels are a Sack of Charcoals.

Shides must be 4 foot long, and must be in compasse either 16, 23, 28, 33, or 38 Inches, according as they are marked for 1, 2, 3, 4, or 5.

Billets should be 3 Foot long, and should be in compasse 7 Inches and a halfe; 10 or 14 Inches, as they are reckoned for 1, 2, or 3.

Fagots should be 3 Foot long, and in compasse 24 Inches, and they ought to be round, and not flat, for so they are much lesse, though they are all one compasse.

of



Of weights.

THere are two sorts of weights used by us : The one is called Troy-weight, the other is Avoir-du-poiz, or over-vveight.

Troy-weight is thus ordered :

24 full grains of wheat make a Penny-weight.

20 Penny-weight make an Ounce.

12 Ounces make a Pound.

By this Weight Silver, Gold and Bread are weighed.

In Avoir-du-poiz Weight,

20 Grains make a Scruple.

3 Scruples make a Dram.

8 Drams make an Ounce.

16 Ounces make a Pound.

But for the great Weights of this sort ordinarily used,

The Hundred weight is 112 lib.

The half hundred 56 lib.

The Quarter 28 lib.

With

With these few Weights 1 lib. 2, 4, 7, 14, 28, 56, you may weigh just an hundred, or any vveight under.

Observations about Gold, Silver, and other Metals.

The worth of Gold.

| | | li. sh. d. q |
|------------------|-------------|--------------|
| One Pound weight | } is vworth | 40-0-0-0 |
| One Ounce | | 3-6-8-0 |
| One Peny-weight | | 0-3-4-0 |
| One Grain | | 1-0-1-2 |

This is the price of ordinary Gold, Angel Gold is worth somewhat more, and Sovereign Gold somewhat lesse.

The worth of Silver.

| | | li. sh. d. q |
|------------------|------------|----------------------|
| One Pound weight | } is worth | 3-0-0-0 |
| One Ounce | | 0-5-0-0 |
| One Peny-Weight | | 0-0-3-0 |
| One Grain | | 0-0-0- $\frac{1}{2}$ |

A

*A way to try Gold, whether it be true
or counterfeit.*

BEcause there is much false Gold, which is so cunningly contrived, that the truth can scarce be found out by the Touch-stone; and yet it is not good to deface any piece, except one be sure it is counterfeit, I shall shew how you may try the truth of a piece of Gold more certainly, then by a Touch-stone; and also without defacing the piece any manner of way.

The triall is thus, vveigh your tven-ty shillings piece of Gold, as you use to do, and put in a grain or tivo to make the scales even, then provide a pale vvith vvater, let the vvater be about three inches deep, and put your scales vvith the piece of Gold, and the brass vveight in them into the vvater; let them stand a little in the bottome of the pale, and then lift them up gently an inch or tivo from the bottome; and then the Gold, if it be good, vvill out-vveigh the brass vveight ten or tvelve grains, though before out of the vvater they

they were equal: And so proportionally the ten shillings piece will outweigh his brass weight five or six grains, and the five shillings piece his weight two or three grains,

Now if you would know the cause hereof, it is because Gold quantity for quantity is the heaviest of all metalls: so that if you should cast 7 bullets of these 7 metalls in one and the same mould, their weights will have this proportion one to another.

| | | | |
|----------------------|-------|---------|------|
| Gold, | 1000. | Silver, | 5438 |
| Quick } silver, } | 7143. | Brasse, | 4737 |
| Lead | 6053. | Iron, | 4210 |
| | | Tinne, | 3895 |

So that Gold is about a third part heavier then Lead, and about an half part heavier then Silver or Brasse: and therefore a piece cannot be made of either of these metalls, but it must be much bigger in bulk then Gold, so that it may partly be suspected by the breadth or thicknesse.

But now the water will certainly discover the difference. For this is a rule in the Art Statick, that every thing un-

der the water loseth so much of its proper weight as the quantity of so much water doth weigh, which is equall to bulk or quantity of their bodies, and so the Gold being not half the quantity of the Brasse, and yet being of equall weight with the Brasse, doth not lose half so much of his proper weight, as the Brasse will: so that if the Gold lose about 10 grains of its proper weight, the Brasse will lose above 20 of its proper weight; and so the Gold comes to be above 10 grains heavier then the Brasse, though out of the water they be of equal weight.

But now the best way to try your Gold this way, if you have any quantity, is thus; Put a piece in the one scale, of whose goodnesse you are assured, and put the other pieces severally in the other, and make them equall, by putting in a grain or two; then put your scales in the water, and weigh them therein; and if they keep equall weight both in the water and out of the water, you may be confident they are both of one metal.

And

A
Gol
or f
Ar
Gol
mak
glin

And thus you may try the truth of Gold in any other things, as Rings, or such like. Thus it is recorded, that *Archimedes* found out how much the Goldsmith had couzened King *Hiero*, in making of a golden Crown, by mingling Brasse amongst it.



pro-
much
ll to
and
ntity
quall
lose
r, as
Gold
roper
so of
Gold
avier
water

your
quan-
one
assu-
rally
ll, by
n put
weigh
quall
out of
they

And

*A Table of the Assize of Bread.
By Troy Weight.*

| <i>weight of a penny loaf.</i> | | | | | | | | | |
|--------------------------------|----|--------|----|--------|----|--------|----|-----|----|
| | | White. | | Wheatē | | Houtho | | | |
| th. | d. | oz. | d. | oz. | d. | oz. | d. | th. | d. |
| 3 | 0 | 11 | 5 | 16 | 18 | 22 | 11 | 3 | 3 |
| 3 | 3 | 10 | 11 | 15 | 17 | 21 | 3 | 3 | 6 |
| 3 | 6 | 9 | 19 | 14 | 18 | 19 | 18 | 3 | 9 |
| 3 | 9 | 9 | 8 | 14 | 2 | 18 | 16 | 4 | 0 |
| 4 | 0 | 8 | 18 | 13 | 7 | 17 | 16 | 4 | 3 |
| 4 | 3 | 8 | 9 | 12 | 13 | 16 | 18 | 4 | 6 |
| 4 | 6 | 8 | 1 | 12 | 1 | 16 | 2 | 4 | 9 |
| 4 | 9 | 7 | 13 | 11 | 10 | 15 | 7 | 5 | 0 |
| 5 | 0 | 7 | 7 | 11 | 0 | 14 | 14 | 5 | 3 |
| 5 | 3 | 7 | 1 | 10 | 11 | 14 | 2 | 5 | 6 |
| 5 | 6 | 6 | 15 | 10 | 3 | 13 | 10 | 5 | 9 |
| 5 | 9 | 6 | 10 | 9 | 15 | 13 | 0 | 6 | 0 |
| 6 | 0 | 6 | 5 | 9 | 8 | 12 | 10 | 6 | 3 |
| 6 | 3 | 6 | 0 | 9 | 1 | 12 | 1 | 6 | 6 |
| 6 | 6 | 5 | 16 | 8 | 15 | 11 | 13 | 6 | 9 |
| 6 | 9 | 5 | 12 | 8 | 9 | 11 | 5 | 7 | 0 |
| 7 | 0 | 5 | 9 | 8 | 2 | 10 | 14 | 7 | 3 |
| 7 | 3 | 5 | 5 | 7 | 18 | 10 | 11 | 7 | 6 |
| 7 | 6 | 5 | 2 | 7 | 13 | 10 | 5 | 7 | 9 |
| 7 | 9 | 4 | 19 | 7 | 9 | 9 | 19 | 8 | 0 |
| 8 | 0 | 4 | 16 | 7 | 5 | 9 | 13 | 8 | 3 |
| 8 | 3 | 4 | 14 | 7 | 1 | 9 | 8 | 8 | 6 |
| 8 | 6 | 4 | 11 | 6 | 17 | 9 | 2 | 8 | 9 |
| 8 | 9 | 4 | 9 | 6 | 13 | 8 | 18 | 9 | 0 |

Price of the Bushel of Wheat for Free-Town-Bakers.

Price of the Bushel of Wheat for Foreigners.

Price of the Bushel of Wheat for Free-Town-Bakers.

*A Table of the Assize of Bread.
By Avoir-du-pois Weight.*

Weight of a penny loaf.

| | | White. | | Wheaté | | House | | | |
|---|-----|--------|----|--------|----|-------|----|--------|---|
| lb. d. | | oz. | d. | oz. | d. | oz. | d. | lb. d. | |
| Price of the Bushel of Wheat for Free-Town-Bakers | 3 0 | 12 | 2 | 18 | 4 | 24 | 5 | 3 | 3 |
| | 3 3 | 11 | 4 | 17 | 3 | 23 | 1 | 3 | 6 |
| | 3 6 | 10 | 7 | 16 | 2 | 21 | 6 | 3 | 9 |
| | 3 9 | 10 | 2 | 15 | 3 | 20 | 4 | 4 | 0 |
| | 4 0 | 9 | 6 | 14 | 15 | 19 | 4 | 4 | 3 |
| | 4 3 | 9 | 2 | 14 | 7 | 18 | 4 | 4 | 6 |
| | 4 6 | 8 | 6 | 13 | 1 | 17 | 3 | 4 | 9 |
| | 4 9 | 8 | 3 | 12 | 5 | 16 | 6 | 5 | 0 |
| | 5 0 | 8 | 0 | 12 | 0 | 16 | 0 | 5 | 3 |
| | 5 3 | 7 | 5 | 11 | 4 | 15 | 3 | 5 | 6 |
| | 5 6 | 7 | 3 | 11 | 1 | 14 | 6 | 5 | 9 |
| | 5 9 | 7 | 1 | 10 | 5 | 14 | 2 | 6 | 0 |
| | 6 0 | 6 | 6 | 10 | 2 | 13 | 5 | 6 | 3 |
| | 6 3 | 6 | 4 | 9 | 7 | 13 | 1 | 6 | 6 |
| | 6 6 | 6 | 3 | 9 | 4 | 12 | 6 | 6 | 9 |
| | 6 9 | 6 | 1 | 9 | 2 | 12 | 2 | 7 | 0 |
| Price of the Bushel of Wheat for Foreigners. | 7 0 | 5 | 7 | 8 | 7 | 11 | 7 | 7 | 3 |
| | 7 3 | 5 | 6 | 8 | 5 | 11 | 4 | 7 | 6 |
| | 7 6 | 5 | 4 | 8 | 3 | 11 | 1 | 7 | 9 |
| | 7 9 | 5 | 3 | 8 | 1 | 10 | 7 | 8 | 0 |
| | 8 0 | 5 | 2 | 7 | 7 | 10 | 4 | 8 | 3 |
| | 8 3 | 5 | 1 | 7 | 5 | 10 | 2 | 8 | 6 |
| | 8 6 | 5 | 0 | 7 | 4 | 10 | 0 | 8 | 9 |
| | 8 9 | 4 | 7 | 7 | 2 | 9 | 6 | 9 | 0 |

*The use of the two fore-going Tables
of the Assize of Bread.*

TO know the true Assize of Bread, according to the Statute, you must first know the price of Wheat, which must be neither of the very best, nor worst, but of the common sort.

Secondly, You must consider whether the Baker which sells the bread live in a City or Corporation, and is a Free-man thereof: or whether he be a Forreigner and not free: for the Free-Bakers are by the Statute allowed two shillings upon the Quarter (that is, three pence upon the Bushel) more profit then the Forreigners.

This considered, if you finde the price of Wheat in the side of the Table, according to the condition of the Baker, whether Free or not Free, then in the same line you shall finde the weight of the Peny White, wheaten, & Houshold loaf.

Now in the first Table this weight of the bread is set down in Troy-weight, which hath 12 Ounces in the pound,
and

and 20 Penny-weights in each Ounce, This is the weight appointed by the Statute to weigh bread by.

But because every one hath not this Weight, I have therefore added the second Table, which shews the very same with the former in *Avoir-du-pois* weight (which is more common) and this hath 16 Ounces in the pound, and 8 Drams in every Ounce. Now it hath been found that 13 of these Ounces are equall to one pound or 12 Ounces *Troy*-weight, and according to this proportion this second Table is made.

Now the Law is very strict against all Bakers in case of offending in this and some other particulars. For if the Major or Bailiffe of any Town finde their bread to be made lighter, they may take it away, and give it to the poor of the said Town. And by the Statute of 51 *Hen.3.* If a Baker want but one ounce in 36, of this Assize, the fourth time he shall suffer the Pillory without fine or redemption.

(248)

*A necessary Table in buying and selling
any thing by the Hundred.*

| Price of one pound | | | | Price of an hundred weight | | | | Price of one pound | | | | Price of an hundred weight | | | |
|--------------------|----|-----|-----|----------------------------|----|----|-----|--------------------|----|----|----|----------------------------|-----|----|----|
| d. | q. | li. | sh. | d. | d. | q. | li. | sh. | d. | d. | q. | li. | sh. | d. | d. |
| 0 | 1 | 0 | 2 | 4 | 6 | 1 | 2 | 18 | 4 | 12 | 1 | 5 | 14 | 4 | |
| 0 | 2 | 0 | 4 | 8 | 6 | 2 | 3 | 0 | 8 | 12 | 2 | 5 | 16 | 8 | |
| 0 | 3 | 0 | 7 | 0 | 6 | 3 | 3 | 3 | 0 | 12 | 3 | 5 | 19 | 0 | |
| 1 | 0 | 0 | 9 | 4 | 7 | 0 | 3 | 5 | 4 | 13 | 0 | 6 | 1 | 4 | |
| 1 | 1 | 0 | 11 | 8 | 7 | 1 | 3 | 7 | 8 | 13 | 1 | 6 | 3 | 8 | |
| 1 | 2 | 0 | 14 | 0 | 7 | 2 | 3 | 10 | 0 | 13 | 2 | 6 | 6 | 0 | |
| 1 | 3 | 0 | 16 | 4 | 7 | 3 | 3 | 12 | 4 | 13 | 3 | 6 | 8 | 4 | |
| 2 | 0 | 0 | 18 | 8 | 8 | 0 | 3 | 14 | 8 | 14 | 0 | 6 | 10 | 8 | |
| 2 | 1 | 1 | 1 | 0 | 8 | 1 | 3 | 17 | 0 | 14 | 1 | 6 | 13 | 0 | |
| 2 | 2 | 1 | 3 | 4 | 8 | 2 | 3 | 19 | 4 | 14 | 2 | 6 | 15 | 4 | |
| 2 | 3 | 1 | 5 | 8 | 8 | 3 | 4 | 1 | 8 | 14 | 3 | 6 | 17 | 8 | |
| 3 | 0 | 1 | 8 | 0 | 9 | 0 | 4 | 4 | 0 | 15 | 0 | 7 | 0 | 0 | |
| 3 | 1 | 1 | 10 | 4 | 9 | 1 | 4 | 6 | 4 | 15 | 1 | 7 | 2 | 4 | |
| 3 | 2 | 1 | 12 | 8 | 9 | 2 | 4 | 8 | 8 | 15 | 2 | 7 | 4 | 8 | |
| 3 | 3 | 1 | 15 | 0 | 9 | 3 | 4 | 11 | 0 | 15 | 3 | 7 | 7 | 0 | |
| 4 | 0 | 1 | 17 | 4 | 10 | 0 | 4 | 13 | 4 | 16 | 0 | 7 | 9 | 4 | |
| 4 | 1 | 1 | 19 | 8 | 10 | 1 | 4 | 15 | 8 | 16 | 1 | 7 | 11 | 8 | |
| 4 | 2 | 2 | 2 | 0 | 10 | 2 | 4 | 18 | 0 | 16 | 2 | 7 | 14 | 0 | |
| 4 | 3 | 2 | 4 | 4 | 10 | 3 | 5 | 0 | 4 | 16 | 3 | 7 | 16 | 4 | |
| 5 | 0 | 2 | 6 | 8 | 11 | 0 | 5 | 2 | 8 | 17 | 0 | 7 | 18 | 8 | |
| 5 | 1 | 2 | 9 | 0 | 11 | 1 | 5 | 5 | 0 | 17 | 1 | 7 | 1 | 0 | |
| 5 | 2 | 2 | 11 | 4 | 11 | 2 | 5 | 7 | 4 | 17 | 2 | 8 | 3 | 4 | |
| 5 | 3 | 2 | 13 | 8 | 11 | 3 | 5 | 9 | 8 | 17 | 3 | 8 | 5 | 8 | |
| 6 | 0 | 2 | 16 | 0 | 12 | 0 | 5 | 12 | 0 | 18 | 0 | 8 | 8 | 0 | |

The use of this Table.

BY this Table, knowing the price of one pound of any thing, you may know how much the Hundred weight (being 112 pound) comes to. Or, having bought any thing by the hundred weight, you may know how to retail it again by the pound. Thus if one pound of any thing cost 4 pence, 3 farthings, a hundred weight of the same commodity will cost 2 pound, 4 shillings, and 4 pence. Also, if a hundred weight of any thing cost 4 pound, 6 shillings, 4 pence, the price of one pound thereof will cost 9 pence farthing: the like may be done for any other. But if your commodity come to above 18 pence the pound, you may do it by the half of the price; or else reckon first for the 18 pence, and after for the rest of the price.

**A TABLE of
ACCOVNTS**

**For the ready Casting up of
the true value of any great
number of any Com-
modities.**

1
2
3
4
5
6
7
8
9
10
20
50
100
1000

A Table of Accounts.

| 1 farthing | | | | 2 farthings | | | | 3 farthings | | | |
|--------------|--|--|----------|--------------|--|----|--------|--------------|--|----|--------|
| li. sh. d. q | | | | li. sh. d. q | | | | li. sh. d. q | | | |
| 1 | | | 1 | | | | 2 | | | | 3 |
| 2 | | | 2 | | | | 1 0 | | | 1 | 2 |
| 3 | | | 3 | | | | 1 2 | | | 2 | 1 |
| 4 | | | 1 0 | | | | 2 0 | | | 3 | 0 |
| 5 | | | 1 1 | | | | 2 2 | | | 3 | 3 |
| 6 | | | 1 2 | | | | 3 0 | | | 4 | 2 |
| 7 | | | 1 3 | | | | 3 2 | | | 5 | 1 |
| 8 | | | 2 0 | | | | 4 0 | | | 6 | 0 |
| 9 | | | 2 1 | | | | 4 2 | | | 6 | 3 |
| 10 | | | 2 2 | | | | 5 0 | | | 7 | 2 |
| 20 | | | 5 0 | | | | 10 0 | | | 1 | 3 0 |
| 30 | | | 7 2 | | | 1 | 3 0 | | | 1 | 10 2 |
| 40 | | | 10 0 | | | 1 | 8 0 | | | 2 | 6 0 |
| 50 | | | 1 0 2 | | | 2 | 1 0 | | | 3 | 1 2 |
| 60 | | | 1 0 3 | | | 2 | 6 0 | | | 3 | 9 0 |
| 70 | | | 1 5 2 | | | 2 | 11 0 | | | 4 | 4 2 |
| 80 | | | 1 8 0 | | | 3 | 4 0 | | | 5 | 0 0 |
| 90 | | | 1 10 2 | | | 3 | 9 0 | | | 5 | 7 2 |
| 100 | | | 2 1 0 | | | 4 | 2 0 | | | 6 | 3 0 |
| 200 | | | 4 2 0 | | | 8 | 4 0 | | | 12 | 6 0 |
| 300 | | | 6 3 0 | | | 12 | 6 0 | | | 18 | 9 0 |
| 400 | | | 8 4 0 | | | 16 | 8 0 | | | 1 | 5 0 0 |
| 500 | | | 10 5 0 | | | 1 | 0 10 0 | | | 1 | 11 3 0 |
| 600 | | | 12 6 0 | | | 1 | 5 0 0 | | | 1 | 17 6 0 |
| 700 | | | 14 7 0 | | | 1 | 9 2 0 | | | 2 | 3 9 0 |
| 800 | | | 16 8 0 | | | 1 | 13 4 0 | | | 2 | 10 0 0 |
| 900 | | | 18 9 0 | | | 1 | 17 6 0 | | | 2 | 16 3 0 |
| 1000 | | | 1 0 10 0 | | | 2 | 1 8 0 | | | 3 | 2 6 0 |
| 2000 | | | 2 1 8 0 | | | 4 | 3 4 0 | | | 6 | 5 0 0 |
| 5000 | | | 5 4 2 0 | | | 10 | 8 4 0 | | | 15 | 12 6 0 |
| 0000 | | | 10 8 4 0 | | | 20 | 16 8 0 | | | 31 | 5 0 0 |

A Table of Accounts.

Number of Ells, or such like.

| | 1 penny | | | 2 pence | | | 3 pence | | |
|-------|---------|-----|----|---------|-----|----|---------|-----|----|
| | li. | sh. | d. | li. | sh. | d. | li. | sh. | d. |
| 1 | | | 1 | | | 2 | | | 3 |
| 2 | | | 2 | | | 4 | | | 6 |
| 3 | | | 3 | | | 6 | | | 9 |
| 4 | | | 4 | | | 8 | | 1 | 0 |
| 5 | | | 5 | | | 10 | | 1 | 3 |
| 6 | | | 6 | | 1 | 0 | | 1 | 6 |
| 7 | | | 7 | | 1 | 2 | | 1 | 9 |
| 8 | | | 8 | | 1 | 4 | | 2 | 0 |
| 9 | | | 9 | | 1 | 6 | | 2 | 3 |
| 10 | | | 10 | | 1 | 8 | | 2 | 6 |
| 20 | | 1 | 8 | | 3 | 4 | | 5 | 0 |
| 30 | | 2 | 6 | | 5 | 0 | | 7 | 6 |
| 40 | | 3 | 4 | | 6 | 8 | | 10 | 0 |
| 50 | | 4 | 2 | | 8 | 4 | | 12 | 6 |
| 60 | | 5 | 0 | | 10 | 0 | | 15 | 0 |
| 70 | | 5 | 10 | | 11 | 8 | | 17 | 6 |
| 80 | | 6 | 8 | | 13 | 4 | 1 | 0 | 0 |
| 90 | | 7 | 6 | | 15 | 0 | 1 | 2 | 6 |
| 100 | | 8 | 4 | | 16 | 8 | 1 | 5 | 0 |
| 200 | | 16 | 8 | 1 | 13 | 4 | 2 | 10 | 0 |
| 300 | 1 | 5 | 0 | 2 | 12 | 0 | 3 | 15 | 0 |
| 400 | 1 | 13 | 4 | 3 | 6 | 8 | 5 | 0 | 0 |
| 500 | 2 | 1 | 8 | 4 | 3 | 4 | 6 | 5 | 0 |
| 600 | 2 | 10 | 0 | 5 | 0 | 0 | 7 | 10 | 0 |
| 700 | 2 | 18 | 4 | 5 | 16 | 8 | 08 | 15 | 0 |
| 800 | 3 | 6 | 8 | 6 | 13 | 4 | 10 | 0 | 0 |
| 900 | 3 | 15 | 0 | 7 | 10 | 0 | 11 | 5 | 0 |
| 1000 | 4 | 3 | 4 | 8 | 6 | 8 | 12 | 10 | 0 |
| 2000 | 8 | 6 | 8 | 16 | 13 | 4 | 25 | 0 | 0 |
| 5000 | 20 | 16 | 8 | 41 | 13 | 4 | 62 | 10 | 0 |
| 10000 | 41 | 13 | 4 | 83 | 6 | 8 | 125 | 0 | 0 |

A Table of Accounts.

Number of Els, or such like.

| | 4 pence | | | 5 pence | | | 6 pence | | |
|-------|---------|-----|----|---------|-----|----|---------|-----|----------|
| | li. | sh. | d. | li. | sh. | d. | li. | sh. | d. |
| 1 | | | 4 | | | 5 | | | 6 |
| 2 | | | 8 | | | 10 | | | 1 0 |
| 3 | | 1 | 0 | | 1 | 3 | | | 1 6 |
| 4 | | 1 | 4 | | 1 | 8 | | | 2 0 |
| 5 | | 1 | 8 | | 2 | 1 | | | 2 6 |
| 6 | | 2 | 0 | | 2 | 6 | | | 3 0 |
| 7 | | 2 | 4 | | 2 | 11 | | | 3 6 |
| 8 | | 2 | 8 | | 3 | 4 | | | 4 0 |
| 9 | | 3 | 0 | | 3 | 9 | | | 4 6 |
| 10 | | 3 | 4 | | 4 | 2 | | | 5 0 |
| 20 | | 6 | 8 | | 8 | 4 | | | 10 0 |
| 30 | | 10 | 0 | | 12 | 6 | | | 15 0 |
| 40 | | 13 | 4 | | 16 | 8 | | | 1 0 0 |
| 50 | | 16 | 8 | | 1 | 0 | | | 1 5 0 |
| 60 | | 1 | 0 | | 1 | 5 | | | 1 10 0 |
| 70 | | 1 | 3 | | 1 | 9 | | | 1 15 0 |
| 80 | | 1 | 6 | | 1 | 13 | | | 2 00 0 |
| 90 | | 1 | 10 | | 1 | 17 | | | 2 05 0 |
| 100 | | 1 | 13 | | 2 | 1 | | | 2 10 0 |
| 200 | | 3 | 6 | | 4 | 3 | | | 5 0 0 |
| 300 | | 5 | 0 | | 6 | 5 | | | 7 10 0 |
| 400 | | 6 | 13 | | 8 | 6 | | | 10 0 0 |
| 500 | | 8 | 6 | | 10 | 8 | | | 12 10 0 |
| 600 | | 10 | 0 | | 12 | 10 | | | 15 0 0 |
| 700 | | 11 | 13 | | 14 | 11 | | | 17 10 0 |
| 800 | | 13 | 6 | | 16 | 13 | | | 20 0 0 |
| 900 | | 15 | 00 | | 18 | 15 | | | 22 10 0 |
| 1000 | | 16 | 13 | | 20 | 16 | | | 25 00 0 |
| 2000 | | 33 | 6 | | 41 | 13 | | | 50 00 0 |
| 5000 | | 83 | 6 | | 104 | 3 | | | 125 00 0 |
| 10000 | | 166 | 13 | | 208 | 6 | | | 250 00 0 |

A Table of Accounts.

Number of Ells, or such like.

| | 7 pence | | | 8 pence | | | 9 pence | | |
|-------|---------|-----|----|---------|-----|----|---------|-----|----|
| | li. | sh. | d. | li. | sh. | d. | li. | sh. | d. |
| 1 | | | 7 | | | 8 | | | 9 |
| 2 | | 1 | 2 | | 1 | 4 | | 1 | 6 |
| 3 | | 1 | 9 | | 2 | 0 | | 2 | 3 |
| 4 | | 2 | 4 | | 2 | 8 | | 3 | 0 |
| 5 | | 2 | 11 | | 3 | 4 | | 3 | 9 |
| 6 | | 3 | 6 | | 4 | 0 | | 4 | 6 |
| 7 | | 4 | 1 | | 4 | 8 | | 5 | 3 |
| 8 | | 4 | 8 | | 5 | 4 | | 6 | 0 |
| 9 | | 5 | 3 | | 6 | 0 | | 6 | 9 |
| 10 | | 5 | 10 | | 6 | 8 | | 7 | 6 |
| 20 | | 11 | 8 | | 13 | 4 | | 15 | 0 |
| 30 | | 17 | 6 | 1 | 0 | 0 | 1 | 2 | 6 |
| 40 | 1 | 3 | 4 | 1 | 6 | 8 | 1 | 10 | 0 |
| 50 | 1 | 9 | 2 | 1 | 13 | 4 | 1 | 17 | 6 |
| 60 | 1 | 15 | 0 | 2 | 0 | 0 | 2 | 5 | 0 |
| 70 | 2 | 0 | 10 | 2 | 6 | 8 | 2 | 12 | 6 |
| 80 | 2 | 6 | 8 | 2 | 13 | 4 | 3 | 0 | 0 |
| 90 | 2 | 12 | 6 | 3 | 0 | 0 | 3 | 7 | 6 |
| 100 | 2 | 18 | 4 | 3 | 6 | 8 | 3 | 15 | 0 |
| 200 | 5 | 16 | 8 | 6 | 13 | 4 | 7 | 10 | 0 |
| 300 | 8 | 15 | 0 | 10 | 0 | 0 | 11 | 5 | 0 |
| 400 | 11 | 13 | 4 | 13 | 6 | 8 | 15 | 0 | 0 |
| 500 | 14 | 11 | 8 | 16 | 13 | 4 | 18 | 15 | 0 |
| 600 | 17 | 10 | 0 | 20 | 0 | 0 | 22 | 10 | 0 |
| 700 | 20 | 8 | 4 | 23 | 6 | 8 | 26 | 5 | 0 |
| 800 | 23 | 6 | 8 | 26 | 13 | 4 | 30 | 0 | 0 |
| 900 | 26 | 5 | 0 | 30 | 0 | 0 | 33 | 15 | 0 |
| 1000 | 29 | 3 | 4 | 33 | 6 | 8 | 37 | 10 | 0 |
| 1000 | 58 | 6 | 8 | 66 | 13 | 4 | 75 | 0 | 0 |
| 5000 | 145 | 16 | 8 | 166 | 13 | 4 | 187 | 10 | 0 |
| 10000 | 291 | 13 | 4 | 333 | 6 | 8 | 375 | 0 | 0 |

A Table of Accounts.

Number of Els, or such like.

| | 10 pence | | | 11 pence | | | 12 pence | | |
|-------|----------|-----|----|----------|-----|----|----------|-----|-----|
| | li. | sh. | d. | li. | sh. | d. | li. | sh. | d. |
| 1 | | | 10 | | | 11 | | | 10 |
| 2 | | 1 | 8 | | 1 | 10 | | 2 | 0 |
| 3 | | 2 | 6 | | 2 | 9 | | 3 | 0 |
| 4 | | 3 | 4 | | 3 | 8 | | 4 | 0 |
| 5 | | 4 | 2 | | 4 | 7 | | 5 | 0 |
| 6 | | 5 | 0 | | 5 | 6 | | 6 | 0 |
| 7 | | 5 | 10 | | 6 | 5 | | 7 | 0 |
| 8 | | 6 | 8 | | 7 | 4 | | 8 | 0 |
| 9 | | 7 | 6 | | 8 | 3 | | 9 | 0 |
| 10 | | 8 | 4 | | 9 | 2 | | 10 | 0 |
| 20 | | 16 | 8 | | 18 | 4 | | 1 | 0 0 |
| 30 | 1 | 5 | 0 | 1 | 7 | 6 | 1 | 10 | 0 |
| 40 | 1 | 13 | 4 | 1 | 16 | 8 | 2 | 0 | 0 |
| 50 | 2 | 1 | 8 | 2 | 5 | 10 | 2 | 10 | 0 |
| 60 | 2 | 10 | 0 | 2 | 15 | 0 | 3 | 0 | 0 |
| 70 | 2 | 18 | 4 | 3 | 4 | 2 | 3 | 10 | 0 |
| 80 | 3 | 6 | 8 | 3 | 13 | 4 | 4 | 0 | 0 |
| 90 | 3 | 15 | 0 | 4 | 2 | 6 | 4 | 10 | 0 |
| 100 | 4 | 3 | 4 | 4 | 11 | 8 | 5 | 0 | 0 |
| 200 | 8 | 6 | 8 | 9 | 3 | 4 | 10 | 0 | 0 |
| 300 | 12 | 10 | 0 | 13 | 15 | 0 | 15 | 0 | 0 |
| 400 | 16 | 13 | 4 | 18 | 6 | 8 | 20 | 0 | 0 |
| 500 | 20 | 16 | 8 | 22 | 18 | 4 | 25 | 0 | 0 |
| 600 | 25 | 0 | 0 | 27 | 10 | 0 | 30 | 0 | 0 |
| 700 | 29 | 3 | 4 | 32 | 1 | 8 | 35 | 0 | 0 |
| 800 | 33 | 6 | 8 | 36 | 13 | 4 | 40 | 0 | 0 |
| 900 | 37 | 10 | 0 | 41 | 5 | 0 | 45 | 0 | 0 |
| 1000 | 41 | 13 | 4 | 45 | 16 | 8 | 50 | 0 | 0 |
| 2000 | 83 | 6 | 8 | 91 | 13 | 4 | 100 | 0 | 0 |
| 3000 | 208 | 6 | 8 | 229 | 3 | 4 | 250 | 0 | 0 |
| 10000 | 416 | 13 | 4 | 458 | 6 | 8 | 500 | 0 | 0 |

A Table of Accounts.

| | 2 Shill. | | 3 Shil. | | 4 Shil. | | 5 Shil. | |
|-------|----------|-----|---------|-----|---------|-----|---------|-----|
| | li. | sh. | li. | sh. | li. | sh. | li. | sh. |
| 1 | | 2 | | 3 | | 4 | | 5 |
| 2 | | 4 | | 6 | | 8 | | 10 |
| 3 | | 6 | | 9 | | 12 | | 15 |
| 4 | | 8 | | 12 | | 16 | 1 | 0 |
| 5 | | 10 | | 15 | 1 | 0 | 1 | 5 |
| 6 | | 12 | | 18 | 1 | 4 | 1 | 10 |
| 7 | | 14 | 1 | 1 | 1 | 8 | 1 | 15 |
| 8 | | 16 | 1 | 4 | 1 | 12 | 2 | 0 |
| 9 | | 18 | 1 | 7 | 1 | 16 | 2 | 5 |
| 10 | 1 | 0 | 1 | 10 | 2 | 0 | 2 | 10 |
| 20 | 2 | 0 | 3 | 00 | 4 | 0 | 5 | 00 |
| 30 | 3 | 0 | 4 | 10 | 6 | 0 | 7 | 10 |
| 40 | 4 | 0 | 6 | 00 | 8 | 0 | 10 | 00 |
| 50 | 5 | 0 | 7 | 10 | 10 | 0 | 12 | 10 |
| 60 | 6 | 0 | 9 | 00 | 12 | 0 | 15 | 00 |
| 70 | 7 | 0 | 10 | 10 | 14 | 0 | 17 | 10 |
| 80 | 8 | 0 | 12 | 00 | 16 | 0 | 20 | 00 |
| 90 | 9 | 0 | 13 | 10 | 18 | 0 | 22 | 10 |
| 100 | 10 | 0 | 15 | 0 | 20 | 0 | 25 | 0 |
| 200 | 20 | 0 | 30 | 0 | 40 | 0 | 50 | 0 |
| 300 | 30 | 0 | 45 | 0 | 60 | 0 | 75 | 0 |
| 400 | 40 | 0 | 60 | 0 | 80 | 0 | 100 | 0 |
| 500 | 50 | 0 | 75 | 0 | 100 | 0 | 125 | 0 |
| 600 | 60 | 0 | 90 | 0 | 120 | 0 | 150 | 0 |
| 700 | 70 | 0 | 105 | 0 | 140 | 0 | 175 | 0 |
| 800 | 80 | 0 | 120 | 0 | 160 | 0 | 200 | 0 |
| 900 | 90 | 0 | 135 | 0 | 180 | 0 | 225 | 0 |
| 1000 | 100 | 0 | 150 | 0 | 200 | 0 | 250 | 0 |
| 2000 | 200 | 0 | 300 | 0 | 400 | 0 | 500 | 0 |
| 5000 | 500 | 0 | 750 | 0 | 1000 | 0 | 1250 | 0 |
| 10000 | 1000 | 0 | 1500 | 0 | 2000 | 0 | 2500 | 0 |

A Table of Accounts.

| | Shil. | 7 Shil. | 8 Shil. | 9 Shil. | 10 Shil. |
|-------|---------|---------|---------|---------|----------|
| | li. sh. | li. sh. | li. sh. | li. sh. | li. sh. |
| 1 | 6 | 7 | 8 | 9 | 10 |
| 2 | 12 | 14 | 16 | 18 | 1 0 |
| 3 | 18 | 1 1 | 1 4 | 1 7 | 1 10 |
| 4 | 1 4 | 1 8 | 1 12 | 1 16 | 2 0 |
| 5 | 1 10 | 1 15 | 2 0 | 2 5 | 2 10 |
| 6 | 1 16 | 2 2 | 2 8 | 2 14 | 3 0 |
| 7 | 2 2 | 2 9 | 2 16 | 3 3 | 3 10 |
| 8 | 2 8 | 2 16 | 3 4 | 3 12 | 4 0 |
| 9 | 2 14 | 3 3 | 3 12 | 4 1 | 4 10 |
| 10 | 3 0 | 3 10 | 4 0 | 4 10 | 5 0 |
| 20 | 6 0 | 7 0 | 8 0 | 9 0 | 10 0 |
| 30 | 9 0 | 10 10 | 12 0 | 13 10 | 15 0 |
| 40 | 12 0 | 14 00 | 16 0 | 18 0 | 20 0 |
| 50 | 15 0 | 17 10 | 20 0 | 22 10 | 25 0 |
| 60 | 18 0 | 21 0 | 24 0 | 27 0 | 30 0 |
| 70 | 21 0 | 24 10 | 28 0 | 31 10 | 35 0 |
| 80 | 24 0 | 28 0 | 32 0 | 36 0 | 40 0 |
| 90 | 27 0 | 31 10 | 36 0 | 40 10 | 45 0 |
| 100 | 30 0 | 35 0 | 40 0 | 45 0 | 50 0 |
| 200 | 60 0 | 70 0 | 80 0 | 90 0 | 100 0 |
| 300 | 90 0 | 105 0 | 120 0 | 135 0 | 150 0 |
| 400 | 120 0 | 140 0 | 160 0 | 180 0 | 200 0 |
| 500 | 150 0 | 175 0 | 200 0 | 225 0 | 250 0 |
| 600 | 180 0 | 210 0 | 240 0 | 270 0 | 300 0 |
| 700 | 210 0 | 245 0 | 280 0 | 315 0 | 350 0 |
| 800 | 240 0 | 280 0 | 320 0 | 360 0 | 400 0 |
| 900 | 270 0 | 315 0 | 360 0 | 405 0 | 450 0 |
| 1000 | 300 0 | 350 0 | 400 0 | 450 0 | 500 0 |
| 2000 | 600 0 | 700 0 | 800 0 | 900 0 | 1000 0 |
| 3000 | 1500 0 | 1750 0 | 2000 0 | 2250 0 | 2500 0 |
| 10000 | 3000 0 | 3500 0 | 4000 0 | 4500 0 | 5000 0 |



*The use of this Table of
Accounts.*

THis Table will serve for many uses, but that which it will be most used about, as being most necessary, is to finde out the true account of any number of ells, yards, or pounds, being sold for so much the yard, ell, or pound.

For Example.

What will 5000 ells of Lockram at 11 pence the ell come?

To finde out this, first look the price of the ell, at the head of the Table, then look down the side of the Table for the number of the ells, so you shall finde in the last colunne but one of the Table,

Table, and in the last line but one thereof, that 500 of any thing at 11 pence a piece, comes to 219 *li.* 3 *sh.* 4 *pence*.

Now if you cannot finde your price in one columnne, or your number of things in one line, you must make two or three parts thereof, and add them altogether, as in the Tables of Interest and Rebate before.

Thus, if you would know what 1500 ells at nine pence half peny come to.

First, in the Table of nine pence.

| | <i>li.</i> | <i>sh.</i> | <i>d.</i> |
|-------------------------|------------|------------|-----------|
| 1000 nine pences are | 37 | 10 | 00 |
| and 500 nine pences are | 18 | 15 | 00 |

Then in the Table of half pence.

| | | | |
|------------------------|----|----|----|
| 1000 half pence are | 02 | 01 | 08 |
| and 500 half pence are | 01 | 00 | 10 |

| | | | |
|---------------|----|----|----|
| <i>In all</i> | 59 | 07 | 06 |
|---------------|----|----|----|

You may make this work somewhat shorter, if you divide your numbers, so that they may lie together, and so take them both together out of the Table, by adding them in one sum. As now 700 and 800 make up 1500.

Then

(260)

| | | Then | li. | sh. | d. |
|-----|---|-----------------|-----|-----|----|
| 700 | } | nine pences are | 56 | 5 | 0 |
| 800 | | | | | |
| | | And | | | |
| 700 | } | nine half pence | 3 | 2 | 6 |
| 800 | | | | | |
| | | In all | 59 | 7 | 6 |

But the Table is so plain and useful, that you will easily finde out wayes of your self, to cast up any such account very certainly and suddenly thereby.

This Table also (if you have any occasion) will serve you as a Table of Interest at five pound *per Centum*. For if instead of the number of pence at the head of the Columnes, you reckon so many Moneths, then the Sums underneath, will shew the true Interest, due for any number of pounds, set down in the side of the Table; just as before in the Table of Interest at six *per Centum*, pag. 101, 102, 103, 104.

*A Table of Expences or wages, whereby
knowing what it is for one day, you may see
what it is in a week, Moneth, or Year.*

| By the day | By the week | | | By the month | | | By the year. | | | |
|------------|-------------|-----|----|--------------|-----|----|--------------|-----|----|---|
| | li. | sh. | d | li. | sh. | d | li. | sh. | d | |
| Pence | 1 | 0 | 7 | 0 | 2 | 4 | 1 | 10 | 5 | |
| | 2 | 0 | 1 | 0 | 4 | 8 | 3 | 0 | 10 | |
| | 3 | 0 | 1 | 0 | 7 | 0 | 4 | 11 | 3 | |
| | 4 | 0 | 2 | 0 | 9 | 4 | 6 | 1 | 8 | |
| | 5 | 0 | 2 | 0 | 11 | 8 | 7 | 12 | 1 | |
| | 6 | 0 | 3 | 0 | 14 | 0 | 9 | 2 | 6 | |
| | 7 | 0 | 4 | 0 | 16 | 4 | 10 | 12 | 11 | |
| | 8 | 0 | 4 | 0 | 18 | 8 | 12 | 3 | 4 | |
| | 9 | 0 | 5 | 1 | 1 | 0 | 13 | 13 | 9 | |
| | 10 | 0 | 5 | 1 | 3 | 4 | 15 | 4 | 2 | |
| | 11 | 0 | 6 | 1 | 5 | 8 | 16 | 14 | 9 | |
| Shillings | 1 | 0 | 7 | 0 | 1 | 8 | 0 | 18 | 5 | 0 |
| | 2 | 0 | 14 | 0 | 2 | 16 | 0 | 36 | 10 | 0 |
| | 3 | 1 | 1 | 0 | 4 | 4 | 0 | 54 | 15 | 0 |
| | 4 | 1 | 8 | 0 | 5 | 12 | 0 | 73 | 0 | 0 |
| | 5 | 1 | 15 | 0 | 7 | 0 | 0 | 91 | 5 | 0 |
| | 6 | 2 | 2 | 0 | 8 | 8 | 0 | 109 | 10 | 0 |
| | 7 | 2 | 9 | 0 | 9 | 16 | 0 | 127 | 15 | 0 |
| | 8 | 2 | 16 | 0 | 11 | 4 | 0 | 146 | 0 | 0 |
| | 9 | 3 | 3 | 0 | 12 | 12 | 0 | 164 | 5 | 0 |
| | 10 | 3 | 10 | 0 | 14 | 0 | 0 | 182 | 10 | 0 |
| | 11 | 3 | 17 | 0 | 15 | 8 | 0 | 215 | 0 | 0 |
| | 12 | 4 | 4 | 0 | 16 | 16 | 0 | 219 | 0 | 0 |
| | 13 | 4 | 11 | 0 | 18 | 4 | 0 | 237 | 5 | 0 |
| | 14 | 4 | 18 | 0 | 19 | 12 | 0 | 255 | 10 | 0 |
| | 15 | 5 | 5 | 0 | 21 | 0 | 0 | 273 | 15 | 0 |
| | 16 | 5 | 12 | 0 | 22 | 8 | 0 | 292 | 0 | 0 |
| | 17 | 5 | 19 | 0 | 23 | 16 | 0 | 310 | 5 | 0 |
| | 18 | 6 | 6 | 0 | 25 | 4 | 0 | 328 | 10 | 0 |
| | 19 | 6 | 13 | 0 | 26 | 12 | 0 | 346 | 15 | 0 |
| | 20 | 7 | 0 | 0 | 28 | 0 | 0 | 365 | 0 | 0 |

In a year there are 365 dayes, and in one pound or 20 shillings there is 240 pence. So that one peny a day comes in the year to one pound, one half pound, one groat, and one peny ; and thus you may reckon for any other number of pence.

As for Example, 6 pence a day.

| | | | |
|--------------------------|----|----|----|
| Is 6 pound, | 06 | 00 | 00 |
| 6 half pounds, which are | 03 | 00 | 00 |
| 6 Groats, which are | 00 | 02 | 00 |
| 6 pence | 00 | 00 | 06 |

In all 09 02 06

Upon this Table you may make these and such like considerations.

A peny a day in one yeer comes to one *li. 10 shil. and 5 d.* Therefore in 21 yeers, it will come to 31 *li. 18 shil. 9 d.* This wil come only by the saving thereof. But if you also employ this, so that it may gain after the rate of ten in the hundred, it will amount to above four score and six pounds in the said time, which may be a good portion for a mans childe.

*A Peny is a small, regardless sum,
Yet in a little while 10 pounds will come.*

He then that carelesly his pence doth spend,
 Will quickly bring his pounds unto an end.
 But he that careful is, and every day
 Doth save those few pence, which well
 spare he may,

In little time, much profit he shall finde,
 Both for himself, & those he leaves behinde.

A peny well sav'd is a peny got,

And will do well to make thy Kitchen hot:

But he that will not spare for th' other pot,

Doth seldom thrive, but find the begger.

Some men will say such men are peny wise.

And oft pound foolish, yet this difference liis

Between these spare pence and such getting
 spenders, (the lenders.

These prove the borrowers, th' other prove

But if one peny in each day doth come

In so short time unto so great a sum,

Then to what number do our sins amount,

Which not by dayes, but minutes we may
 count?

How careful therefore should we be,

each day, (may

That one good work (at least) we do, which

(By Gods acceptance through Christ) coun-
 tervail

The many times & things wherein we fail.

A

A Catalogue of all the Shires, Hundreds, Cives, Market Towns, and Parish Churches in England and Wales.

| <i>Shires.</i> | Hun- dreds | C. ires | Ma. a. Towns | Par- ish |
|--------------------|---------------|---------------------------|-----------------|-------------|
| 1 Barkshire | 20 | 00 | 12 | 140 |
| 2 Bedfordshire | 09 | 00 | 10 | 116 |
| 3 Buckinghamshire | 13 | 00 | 11 | 185 |
| 4 Cambridgeshire | 17 | 00 | 08 | 163 |
| 5 Cheshire | 07 | <i>Chest</i> | 13 | 068 |
| 6 Cornwall | 09 | 00 | 22 | 161 |
| 7 Cumberland | not | <i>Carlz</i> | 09 | 058 |
| 8 Darbyshire | 06 | 00 | 08 | 106 |
| 9 Devonshire | 03 | <i>Exce</i> | 37 | 394 |
| 10 Dorsetshire | 34 | 00 | 18 | 248 |
| 11 Durham | not | <i>Dur.</i> | 06 | 118 |
| 12 Essex | 20 | <i>Colc.</i> | 21 | 415 |
| 13 Gloucestershire | 30 | <i>Glouc</i> | 20 | 280 |
| 14 Hampshire | 37 | <i>Hinc</i> | 21 | 289 |
| 15 Hartfordshire | 08 | 00 | 18 | 120 |
| 16 Herefordshire | 11 | <i>Here</i> | 08 | 176 |
| 17 Huntingdonshire | 04 | 00 | 06 | 079 |
| 18 Kent | 06 | <i>Cant er Roches</i> | 17 | 398 |
| 19 Lancashire | 06 | 00 | 15 | 036 |
| 20 Leicestershire | 06 | 00 | 12 | 200 |
| 21 Lincolnshire | 31 | <i>Linc</i> | 26 | 630 |
| 22 Middlesex | 07 | <i>L. M.</i> | 04 | 186 |
| 23 Northampton shi | 20 | <i>Peter</i> | 10 | 326 |
| 24 Nottinghamshire | 08 | 00 | 08 | 168 |
| 25 Northumberland | not | 00 | 11 | 168 |

| | | | | | |
|------------|-----------------|-----|-------|-----|-------|
| 26 | Norfolke | | Nor. | 26 | 660 |
| 27 | Oxfordshire | 14 | Oxj. | 10 | 280 |
| 28 | Rutland | 05 | 00 | 02 | 048 |
| 29 | Shropshire | 15 | 00 | 14 | 170 |
| 30 | Somersetshire | 42 | 03 | 33 | 385 |
| 31 | Staffordshire | 05 | Leyc | 13 | 130 |
| 32 | Suffolke | 22 | 00 | 28 | 575 |
| 33 | Surrie | 13 | 00 | 09 | 140 |
| 34 | Suffex | 65 | Chic | 18 | 312 |
| 35 | Warwickshire | 09 | Cove | 15 | 158 |
| 36 | Westmerland | not | 00 | 04 | 026 |
| 37 | Wiltshire | 29 | Salif | 19 | 304 |
| 38 | Worcestershire | 07 | Worc | 10 | 152 |
| 39 | Yorkshire | | York | 46 | 563 |
| 40 | Anglesey | 06 | 00 | 02 | 074 |
| 41 | Brecknockshire | 6 | 00 | 03 | 061 |
| 42 | Cardiganshire | 05 | 00 | 04 | 064 |
| 43 | Carmarthenshire | 06 | 00 | 06 | 087 |
| 44 | Carnarvonshire | | 00 | 05 | 068 |
| 45 | Denbighshire | 12 | 00 | 03 | 057 |
| 46 | Flintshire | 5 | 00 | 01 | 028 |
| 47 | Glamorganshire | 10 | 00 | 07 | 118 |
| 48 | Montgomeryshire | 07 | 00 | 06 | 047 |
| 49 | Monmouthshire | 06 | 00 | 06 | 127 |
| 50 | Merionethshire | 06 | 00 | 03 | 037 |
| 51 | Pembrokeshire | 07 | 00 | 06 | 145 |
| 52 | Ranorshire | 6 | 00 | 04 | 052 |
| In all, 52 | | | 25 | 654 | 10096 |

A Table of the Kings of England

| <i>Kings.</i> | They began to Reign. | They Reigned yea. mo. da |
|---------------|-------------------------|-----------------------------|
| 1 Wil. Conqu. | 1066 Octob. 14 | 20 11 21 |
| 2 Wil. Rufus | 1087 Septem. 9 | 12 11 18 |
| 3 Henry 1 | 1100 August 1 | 35 4 11 |
| 4 Stephen | 1135 Decem. 2 | 18 11 18 |
| 5 Henry 2 | 1154 Octob. 25 | 34 9 2 |
| 6 Richard 1 | 1189 Iuly 6 | 9 9 21 |
| 7 Iohn | 1199 April 6 | 17 7 0 |
| 8 Henry 3 | 1216 Octob. 19 | 56 1 0 |
| 9 Edward 1 | 1272 Nove. 16 | 34 8 9 |
| 10 Edward 2 | 1307 Iuly 7 | 19 7 6 |
| 11 Edward 3 | 1326 Ianua. 25 | 50 5 7 |
| 12 Richard 2 | 1377 Iune 21 | 22 3 14 |
| 13 Henry 4 | 1399 Septe. 29 | 13 6 3 |
| 14 Henry 5 | 1412 March 20 | 9 5 24 |
| 15 Henry 6 | 1422 August 31 | 38 6 16 |
| 16 Edward 4 | 1460 March 4 | 22 1 8 |
| 17 Edward 5 | 1483 April 9 | 0 2 18 |
| 18 Richard 3 | 1483 Iune 22 | 2 2 5 |
| 19 Henry 7 | 1485 August 22 | 23 8 19 |
| 20 Henry 8 | 1509 April 22 | 37 10 2 |
| 21 Edward 6 | 1546 Ianua. 28 | 6 5 19 |
| 22 Mary | 1553 Iuly 6 | 5 4 22 |
| 23 Elizabeth | 1558 Nove. 17 | 14 4 15 |
| 24 Iames | 1602 March 24 | 22 0 3 |
| 25 Charles | 1625 March 27 | 23 11 2 |

The use of the Table of Kings.

This Table of the Kings I suppose may be necessary in the searching out the antiquity of many old Evidences, which are dated many times by the yeers of the King then reigning, and not by the yeers of our Lord. And it might be more plain and profitable if it were drawn out a little larger, but time and paper are wanting: I have only therefore as a patern shewn how it might be done in this hundred yeers last past, and added some brief notes out of History thereunto.

The use of this following Table will appear in such questions.

How long is it since the 25 year of King Henry the Third?

Which is thus found,

Henry 3 began to reign, *Anno Dom.* 1216

To which add the 25 yeers, 25

So is it *Anno Domini* 1241

Which subtracted from the }
present year 1653

There remains the yeers since 412

N 2 An

anno
 Dom | An. R^{ig}. | *Queen Elizabeth.*

Queen Elizabeth began to Reign
the 17 of November, Anno
Domini, 1558.

| | | |
|------|---|---|
| 1558 | 1 | Queen crowned. Parliament called. |
| 1559 | 2 | Mass, Monks, and Monasteries suppressed. |
| 1560 | 3 | War in Scotland against the French and Scots. Twenty persons slain by Gun-powder in Crooked Lane. |
| 1561 | 4 | Merchant Tailours School founded. |
| 1562 | 5 | Pauls Steeple burnt. Small money coined. |
| 1563 | 6 | Many monstrous Births. Tempests and Earthquake. |
| | | Great Plague in London, 20000 died thereof. |

Goods

anno
Dom

An. R. eg.

Queen Elizabeth.

| | | |
|------|----------------|---|
| 1564 | 7 | Goods first sold by the common Out-cry. The Heavens seem'd to burn. Thames frozen over. |
| 1565 | 8 ^r | Great Tempests. |
| 1566 | 9 | King James born. 7 Aldermen died in London. |
| 1567 | 10 | Royal Exchange finished. King James crowned in Scotland. |
| 1568 | 11 | A dry Summer. |
| | 12 | Q. of Scots taken England. A great Lottery. |
| 1569 | | Rebellion in the North. |
| | 13 | 66 Constables executed for it. Wars against Scotland. |
| 1570 | 14 | Strange Earthquake in Herefordshire. |
| 1571 | | The Christians Victory at Lepanto. |
| 1572 | 15 | Massacre in France. The new Star. |
| 1573 | 16 | Earl of Essex goes to Ireland. Coun-. |

| anno Dom | An. Reg. | Queen Elizabeth. |
|-------------|----------|------------------|
|-------------|----------|------------------|

| | | |
|------|----|---|
| 1574 | 17 | Counterfeits punished. One drowned in <i>Dowgate</i> Channel. |
| 1575 | 18 | An Earthquake. Anabaptists punished. |
| 1576 | 19 | <i>Frobishers</i> Voyage to the North. |
| 1577 | 20 | Swange infection at the As- sises in <i>Oxford</i> . |
| 1578 | 21 | A great Snow. |
| 1579 | 22 | A Smith made a Lock, Key and Chain, which weighed but a grain and a half. |
| 1580 | 23 | A great Earthquake. A blazing Star. |
| 1581 | 24 | <i>Campion</i> , and two Iesuits more executed. |
| | 25 | The Kalender reformed by Pope <i>Gregory</i> . |
| 1582 | | Three kill'd with Gunpowder at Galley-Key. |
| 1583 | 26 | Earthquake in <i>Dorsetshire</i> . Nant- |

anno
Dom

An. Reg.

Queen Elizabeth.

| | | |
|------|----|--|
| 1584 | 27 | Nantwich burnt. Traitors executed. |
| 1585 | | Holland sues for protection. |
| | 28 | Tobacco first brought into England. |
| 1586 | | Ludgate new built. |
| | 29 | Queen of Scots beheaded. |
| 1588 | 30 | Blackwel Hall new built. |
| 1588 | 31 | The Spanish Armado over- thrown. |
| 1589 | 32 | Duke of Guise murdered. |
| 1590 | 33 | Hacket a Blasphemer hanged |
| 1591 | 4 | Volunteers go into France. The East-India Company be- gun. |
| 1592 | 35 | The Thames almost dry. |
| 1593 | 36 | 10635 died of the Plague in London. |
| 1594 | 37 | Great Tempests. |
| 1595 | 38 | Scarcity of Corn. |
| 1596 | 39 | Effex taketh Cadix in Spain. |
| 1597 | 40 | Wheat at thirteen shillings the Bushel |

N 4

Great

| | |
|-------------|----------|
| anno Dom | An. Reg. |
|-------------|----------|

King James.

| | | |
|------|----|--|
| 1598 | 41 | Great Tempests and Frosts. |
| 1599 | 42 | Earl of <i>Essex</i> goes to <i>Ireland</i> . |
| 1600 | 43 | Ambassadour from <i>Russia</i> and <i>Barbary</i> . |
| 1601 | | <i>Essex</i> beheaded. |
| 1602 | 44 | <i>Q. Elizab.</i> died at <i>Richmond</i> . |

King James began to Reign,
March 24, Anno Do-
mini, 1602.

| | | |
|------|---|---|
| 1603 | 1 | <i>K. James</i> comes into <i>England</i> . died of the Plague in <i>London</i> . |
| 1604 | 2 | Peace made with <i>Spain</i> . |
| 1605 | 3 | The Powder-Treason. |
| 1606 | 4 | Squire <i>Lepton</i> rode five times between <i>York</i> and <i>London</i> in five dayes. |
| 1607 | 5 | <i>Moor-fields</i> beautified. |
| 1608 | 6 | A great Frost. <i>Edmundsbury</i> burnt. Oath of Allegiance. |

New

anno
Dom

An. Reg.

King James.

- | | | |
|------|----|---|
| 1609 | 7 | New Exchange in the Strand built. Allom first made in England. |
| 1610 | 8 | King of France murdered. Prince Henry created Prince of Wales. |
| 1611 | 9 | Bartholmew Legatt an Arrian burnt in Smithfield. |
| 1612 | 10 | Prince Henry died. The Lady Elizabeth married to the Palgrave. |
| 1613 | 11 | The Artillery Company re- |
| | 12 | vived. |
| 1614 | 13 | Sir Hugh Middletons Water. |
| | 14 | Great Snow and Frost. |
| 1615 | | Smithfield paved, Somersets downfal. |
| 1616 | 15 | Prince Charles created Prince of Wales. |
| 1617 | 16 | Haydock the Sleeping Preach. |
| 1618 | | Sir Walter Raleigh decollated. |
| 1619 | 17 | The troubles in Bohemia begun. |

N 5 King

| | |
|-------------|----------|
| anno Dom | An. Reg. |
|-------------|----------|

King James.

| | | |
|------|----|--|
| 1610 | 18 | King of Bohemia driven out of Prague. |
| 1611 | 19 | Proclamation against talking of State-matters. |
| 1612 | 20 | Prince Charles his Voyage into Spain. |
| 1613 | 21 | Black-Friers fell down. |
| 1614 | 22 | English. murdered at Amboyne. |

King Charles began to Reign the
27 of March, Anno Do-
mini; 1625.

| | | |
|------|---|---|
| 1625 | 1 | The King marrieth the Lady Mary, daughter to the King of France. |
| | | A great Plague all over England, so that there died in London 63000 in that year. |
| 1626 | 2 | The King is crowned. |
| | | Quarrels with Spain and France. |

King Charles.

| anno Dom | An. Reg. | |
|-------------|-------------|--|
| | | An Earthquake in England. |
| 1627 | 3 | The Isle of Rhee taken and spoiled. |
| 1628 | 4 | Duke of Buckingham stab'd |
| 1629 | 5 | The Plantation of New E. g. |
| 1630 | 6 | Prince Charles born. (land. Peace agreed between Eng- land and Spain. (many. |
| 1631 | 7 | King of Sweden invades Ger- The K. requires of the Em- perour to restore the Prince Palatine to his Rights. Battel at Lipsick, Tilly slain. |
| 1632 | 8 | London Bridge burnt. |
| 1633 | 9 | The K. of Sweden having ob- tain'd many victories, is slain in the great Battel of Lur- rein, wherein his forces were notwithstanding victorious, and pursue their conquests. |
| 1634 | 10 | Ratisbon yielded to the En- perour, after a long siege, ha- ving made 465 Sallies. |
| 1635 | 11 | The Hollanders trouble the Spaniards in the West Indies; |

(276)

anno
Dom

An. Reg.

King Charles.

- | | | |
|------|----|--|
| 1636 | 12 | The Dutch spoil the Spaniards Silver Fleet. |
| 1637 | 13 | The Popes <i>Nuncios</i> received in the Kings Court, and the English Liturgie sent into Scotland. |
| 1638 | 14 | The Scots dislike these new Orders, and make a National Covenant against them. Patentees and Ship-money vex the common people. |
| 1639 | 15 | The Dutch spoil the Spanish Navy near <i>Dover</i> , notwithstanding the English Navy lie by, and stir to hinder the fight. |
| | | Threescore thousand slain by an Earthquake in <i>Italy</i> . |
| 1640 | 16 | The Scots prosecute their Covenant by force of Arms, they invade <i>England</i> , send their desires to the King. |
| | | The King calls a Parliament in <i>April</i> , but shortly dissolveth it. |
| | | The |

anno
Dom

An. Reg.

King Charles.

1641

17

The King grants the Scots their desires, and appoints another Parliament against the third of *November*, 1640. The King returns out of Scotland, and is received with great pomp and state at *London*.

The Earl of *Stafford* is condemned and decapitated, and the Archbishop of *Canterbury* put into the Tower.

1641

18

Great dissention grows between the King and the Parliament.

The King leaves the Parliament, goes into the North. Sir *Iohn Hotham* denies the King entrance into *Hull*.

The King and Parliament fall from words to blows.

The King sets up his Standard at *Nottingham*.

The

anno
Dom

An. Reg.

King Charles.

- | | | |
|------|----|--|
| | | The Parliament chose the Earl of <i>Essex</i> for their General; and besides some other lesser encounters they come to a great battel at Edge-hill. In the mean time the Irish take occasion to rebel. |
| 1643 | 19 | The Kings forces grow strong and prosperous under Prince <i>Rupert</i> and Prince <i>Maurice</i> , who take Bristol & Exeter, and besiege Gloucester, which is valiantly defended by Col. <i>Massey</i> , untill the Earl of <i>Essex</i> came and removed the Siege, and afterward beats the Kings forces at <i>Newberry</i> . The Parliament call in the Scots to help them, and the K. the Irish, who are well handled at <i>Nantwich</i> . |
| 1644 | 20 | The Scots being entred into England, joyn their forces with |

(279)

anno
Dom

An. Reg.

King Charles.

with the Earl of *Manchesters*;
York besieged: and the
great fight at *Marston Moore*.
But the E. of *Essex* going too
far into the West, loseth his
train of Artillery, and most
part of his foot in Cornwall.
Yet the remainder of the Ar-
my joyning with the Earl of
Manchesters forces, get the
better of the Kings forces at
the second *Newbery* battel;
who not prosecuting the Vi-
ctory, makes the Earl ill
thought of.

1645

21

The Arch-Bishop of Canter-
bury beheaded.

A Treaty of peace at *Ux-*
bridge, but to none effect.

Sir *Thomas Fairfax* made
Lord Generall of the Parlia-
ments forces, who routs the
kings forces at *Nazeby*; af-
terward

anno
Dom

An. Reg.

King Charles.

- | | | |
|------|----|--|
| | | terward raiseth the Siege at <i>Taunton</i> , and recovers Bristol. |
| 1646 | 22 | Lord General <i>Fairfax</i> having recover'd all the West, returns back, and besiegeth <i>Oxford</i> , but the King privately gets out, and goes to the Scotch Army, who were now marching out of England again; the work being (as was thought) pretty well over. |
| 1647 | 23 | The King is delivered by the Scots into the hands of the Parliaments Commissioners, who bring the King to Holmby. From whence he is taken by the Army, & brought among them to Royston. Some difference there is between the Parliament and Army |

ann
Dom

An. Reg.

King Charles.

Army about this; but the whole Army joyn together, bring the King to Hampton-Court, and march through London. But in a vvhile the Army beginning to jar among themselves, the King is sent privately away into the Isle of Wight; whither the Parliament send him four bills to signe, which the King refuseth, and desires a personall Treaty.

16;8

24

Many Petitions are presented from severall Countreys about this personall Treaty, which not being accepted, cause some insurrections in Kent, Surrey, and Essex. The Navie also revolt, and the Scots invade us under the conduct of Marquesse Hamilton. But Colchester is taken

anno
Dom

An. Rēg.

King Charles.

taken by the Lord General *Fairfax*; and the Scots beaten at Preston in Lancashire by the Lord Generall *Cromwell*; and so all is quiet again. Yet this brought things so about, that a personall Treaty with the King is agreed upon, and Commissioners sent to the King; who being there above two moneths, and nothing concluded; the Parliament and Army begin to jar again: the Army purge the Parliament; and then the King is brought to Triall, condemned, and beheaded.

1649

Shortly after the Kings death the House of Lords is voted uselesse: Marquess *Hamilton* is condemned for bringing in the Scots; and the

anno

Dom

the Earl of Holland and Lord Capel for being to busie in the last Summers insurrection, were all three beheaded together. The Royallists in Ireland under the command of the Earl of Ormond are grown Masters of the field, and besiege *Dublin*. Hereupon the L. Gen. *Cromwell* prepares to go thither, the very news whereof puts such courage into our souldiers, and such fear into their enemies, that *Dublin* before his arrivall relieves it self, and afterward all the other places are speedily regained; and so all being set in good order again, the Lord General *Cromwel* leaves the Lord Deputy *Ireton* to follow that businesse, and returns into *England*.

ANNO
DOM

1650

England. A lamentable accident by Gun-powder in Tower-street, many houses being blown up, and almost an hundred persons slain.

The Scots having treated with the late Kings eldest Son, receive him among them, and crown him King, raising all the forces they can to assist him. Hereupon the Lord Generall *Cromwell* is made Lord Generall, and marches with the Army into Scotland: where the Scots having almost tired out our Army, and caught them at great advantage, grow bold to face them at Dunbar; but after a little fight, the English had a great Victory: 10000 Scots being taken, and the Lord Generall takes up
his

anno

Dom

1651

his quarters in Edinburgh. The Scotch Army thus defeated were most of them Presbyterians; so that the young King and his party are not much sorry for the losse, but think now to recover all into their own hands. They grow strong in the North, but dare not come over the Fife to fight our Army; and having possession of the passe at Sterling, keep our Army from comming at them. But in *July* some of our Army get over the River in Boats, and overthrow a strong party of them. And most of the Army being afterward got over, march Northward toward S. Johnstown, thinking the King would follow them. But the King and his Army presently fall into England, and
march

anno

Dom

march as far as Worcester without any opposition, our Army being so far behinde them. But staying here, they are overtaken & hemmed in by our forces; and upon the 3d. of *Sept.* being the day of their great overthrow last year at Dunbar, they are here likewise totally routed; so that the King himselfe very hardly escaped. Some English imprisoned for complying with the Scots, and Mr. *Love* and *Gibbons* beheaded.

1652

Ireland being thus conquered, *Scotland* subdued, *England* quiet, the Parliament take the many complaints of Merchants and Seamen against the Dutch, and many other publique injuries offered by them into consideration, and make an Order, that the
Dutch

ANNO

DOM

1693

Dutch shall bring no commodities into our parts, but such as are of the growth of their own Countrey. This made the Dutch, makes them strengthen their Navies, thinking to over-power us at Sea. Yet fearing the worst, they send their Commissioners hither to treat for an agreement. But in the mean time, thinking they had got a great advantage of us, they set upon a part of our Navy by Dover, who valiantly defend themselves, beyond expectation. Thus the Treaty is broke off, and the war growes both at home and abroad; our Fleets for the most part worsting of theirs, but in the Straights they get the better of our Merchants. *Glasco* in Scotland burnt. A Comet appears from the 8 or 9 to the 30 of *December*. *Marleborow* burnt. The old Parliament that had now continued above 12 years, is dissolved by the

anno

Dom

Army, and a new one chosen, and set up by them. Yet this great change (blessed be God) hath made no confusion, but all things go on and prosper. The Dutch came in a vapouring humour into Dover-road, and made some shot into the Town, but they have been well paid for it twice since; their chief Admirall *Van Trump* being slain in the last. And now they have sent two more Commissioners, in reference to another Treaty; wherein I desire God first and chiefly to give them and us a spirit of wisdom and concord to end this war; or else to give us such a spirit of wisdom and courage to follow it, that we may maintain our just rights and priviledges, in despite of them or any other that shall oppose therein.

F I N I S.

3
y
d
d
h
e
n
n
u